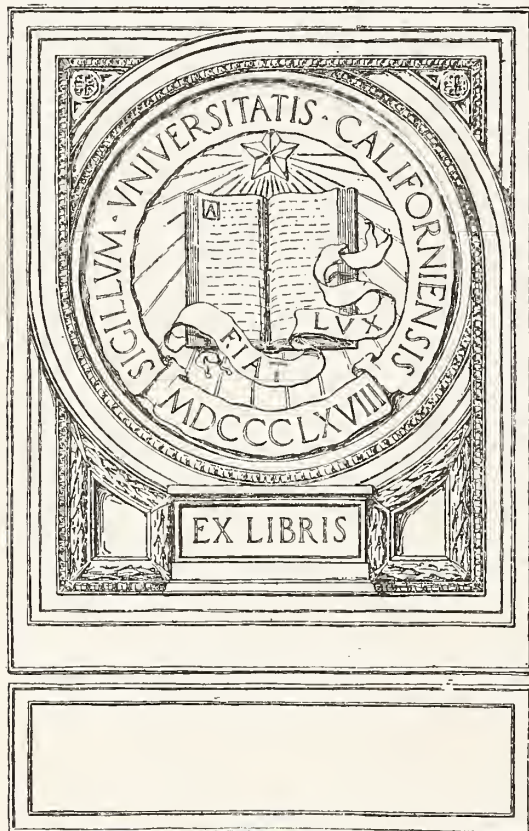
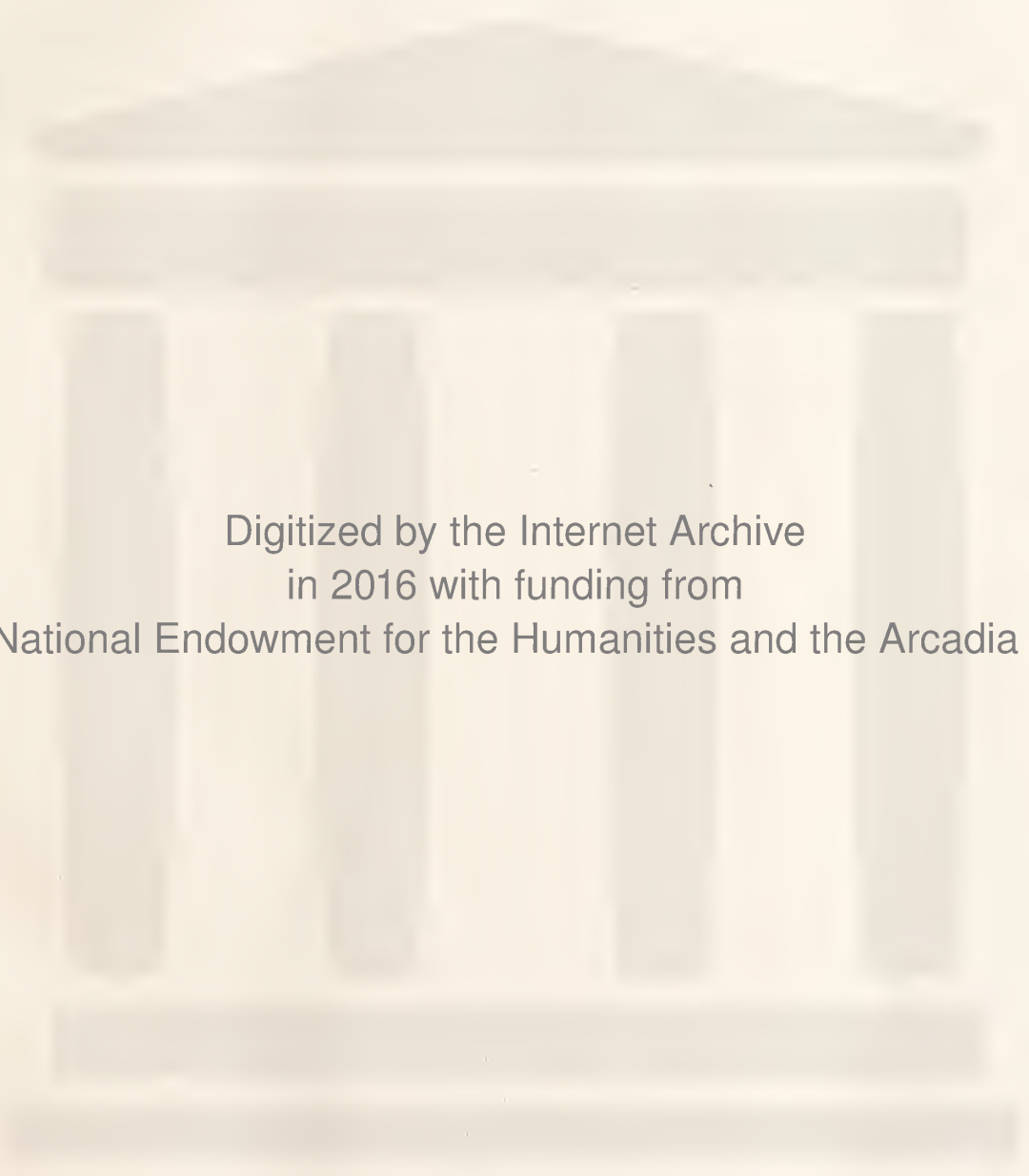


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The Journal of the Iowa State Medical Society

INDEX

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1920

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INDEX

1920

	PAGE
Address, Victor C. Vaughn, M.D., Ann Arbor.....	199
Address of President, William L. Allen, M.D., Davenport....	165
Address in Surgery, Joseph Bloodgood, M.D., Baltimore.....	297
American College of Surgeons, Trip in Behalf of, Dr. W. J. Mayo and Dr. Franklin H. Martin.....	223
Anesthetist and His "Power of Attorney," The, Ralph M. Waters, M.D., Sioux City.....	413
Arthritis Deformans, Kate Hills Bock, Dowagiac, Michigan....	419

AUTHORS—

Agnew, Dr. Fred F., Independence.....	175
Albert, Dr. Henry, Iowa City.....	35
Allen, Dr. E. D., Hampton.....	337
Allen, Dr. William L., Davenport.....	165
Armstrong, Dr. Margaret, Iowa City.....	209
Barewald, Dr. C. L., Davenport.....	14
Bierring, Dr. Walter L., Des Moines.....	1, 321
*Birge, Dr. E. G., Iowa City.....	69
Bock, Kate Hills, Dowagiac, Michigan.....	419
Bowen, Dr. William W., Fort Dodge.....	9
Brinkman, Dr. J. E., Waterloo.....	266
Bloodgood, Dr. Joseph, Baltimore.....	297
Chase, Dr. Sumner B., Fort Dodge.....	404
Conkling, Lieut.-Col. W. S., Des Moines.....	356, 387
Crile, Dr. George W., Cleveland.....	137
Doolittle, Dr. Russell C., Des Moines.....	376
Dutcher, C. M., Iowa City.....	331
Fay, Dr. Oliver J., Des Moines.....	63
Fairchild, Jr., Dr. D. S., Clinton.....	257
Fairchild, Sr., Dr. D. S., Clinton.....	113, 347, 380
Frantz, Dr. Charles P., Burlington.....	309
Fritz, Captain Lucius A.....	16
Edgerly, M.C., U. S. A., Major E. T., Ottumwa.....	31
Erskine, Dr. Arthur W., Cedar Rapids.....	104
Gardner, Dr. Paul E., New Hampton.....	273, 415
Gaumer, Dr. James S., Fairfield.....	408
Griswold, Dr. Don M., Iowa City.....	228
Hamilton, Dr. John H., Iowa City.....	38
Kenefick, Dr. M. J., Algona.....	5
Kessel, Dr. George, Cresco.....	74
Langworthy, Dr. Henry G., Dubuque.....	108
Lapsley, Dr. Robert M., Keokuk.....	308
McCarthy, Dr. Wilton W., Des Moines.....	173
McGready, Dr. Joseph H., Independence.....	270
McKinley, Dr. A. D., Des Moines.....	365
Macrae, Jr., Colonel Donald, Council Bluffs.....	118
Magec, Dr. Charles H., Burlington.....	216
Martin, Dr. Franklin T., Chicago.....	223
Meyer, Dr. H. E., Hampton.....	340
O'Keefe, Dr. J. E., Waterloo.....	142
Parker, Dr. Ralph H., Des Moines.....	71
Pearson, Dr. W. W., Des Moines.....	303
Peck, Dr. John H., Des Moines.....	42
Pember, Dr. John H., Janesville, Wisconsin.....	181
Pemberton, Dr. J. de J., Rochester.....	170
Phillips, Dr. A. B., Clear Lake.....	106
Reed, Dr. Charles A. L., Cincinnati.....	204

*Deceased.

Reeder, Dr. James E., Sioux City.....	313
Rendleman, Dr. W. H. Davenport.....	168
Rohlf, Dr. W. A., Waverly.....	7
Rosenow, Dr. E. C., Rochester.....	335
Ross, Dr. William H., Waterloo.....	373
Rothert, Henry W., Council Bluffs.....	109
Rowan, Dr. Charles J., Iowa City.....	44
Scarborough, Dr. H. V., Oakdale.....	98
Stacy, Dr. Leda J., Rochester.....	301
Stookey, Dr. Paul F., Des Moines.....	285
Thomas, Dr. C. R., Iowa City.....	275
Van Meter, Dr. Paul W., Rockwell City.....	341
Vaughn, Dr. Victor C., Ann Arbor.....	199
Waters, Dr. Ralph M., Sioux City.....	413
Williams, Dr. Edward M., Sioux City.....	149
Witte, Dr. Max E., Clarinda.....	399
Wohl, Dr. M. G., Council Bluffs.....	369
Wolfe, Dr. Otis, Marshalltown.....	212
Yates, Dr. J. L., Milwaukee.....	67

Back Pains, Paul E. Gardner, M.D., New Hampton.....	415
Births	61, 361, 397
Blood Transfusions, Practical Considerations of the Dangers Associated with, J. de J. Pemberton, M.D., Rochester....	170

BOOK REVIEWS—

Anaphylaxis and Anti-Anaphylaxis and Their Experimental Foundations	164
Anatomy, Fundamentals of Human.... (Adv. p. xviii, Dec.)	
Anesthesia, Regional-Victor Panchet's Technique.....	362
Arteriosclerosis and Hypertension with Chapters on Blood-Pressure	364
Bacteria and Protozoa, Text-Book Upon Pathogenic.....	92
Blind, Their Condition and Work Being Done for Them in United States, The.....	198
Cancer, Medical Treatment.....	197
Cancer, What We Know About.....	62
Cerebrospinal Fluid in Health and Disease.....	29
Chemistry for Nurses, Text-Book..... (Adv. p. xx, Feb.)	
Chest and the Principles of Diagnosis, Diseases of, (Adv. p. xviii, Sept.)	
College of Physicians Philadelphia, Transactions.....	164
Council on Chemistry and Pharmacy of the A. M. A., Reports of	364
Diseases of Infants and Children.....	195
Dorland's Medical Dictionary.....	195
Duodenal Tube and Its Possibilities..... (Adv. p. xviii, Nov.)	
Diagnosis, Principles and Practice.....	294
Diseases, Nervous and Mental..... (Adv. p. xviii, March)	
Gynecology, Atlas of Operative.....	91
Gynecology, Technology	30
Genito-Urinary Surgery, An Outline.....	30
Health Officer, The.....	62
Heart and the Effort Syndrome, The Soldier's.....	27
History of One Hundred and Seventeenth Sanitary Train	194
Hydrotherapy for Physician Architects and Nurses, An Epitome of..... (Adv. p. xviii, Dec.)	
Impotence, Sexual	295
Infant Feeding, Principles and Practice.....	362

	PAGE		PAGE
Infant Feeding, Simplified.....(Adv. p. xviii, Nov.)		Economic Relationship, The Doctor's.....	123
Insurance, Health	28	Emmett, Dr. Thomas Addis.....	134
Lungs and Pleura, Treatment of Wounds of.....	393	Endocarditis, Tuberculosis.....	85
Manual of Venereal Disease.....(Adv. p. xviii, Aug.)		Equisetene	430
Materia Medica for Nurses, Text-Book.....	29	European Instructors Arrive in Minneapolis to Inspect	
Mayo Clinic, Collected Papers.....	27	Work at University.....	185
Medical Clinics of North America, 164, 195, 296, 362, Adv. p.		Exhibit, 1920 Session, The Commercial.....	97
xx, Feb.; Adv. p. xxiv, April; Adv. p. xviii, Nov.		Fee Bills.....	221
Milk	29	Foreign Guests Visiting the U. S. Coming to Iowa.....	126
Modern Surgery, General and Operative, (Adv. p. xviii, Nov.)		Foundation Fund Committee.....	87
Mustard Gas Poisoning, Medical Aspects.....	136	Gas Poisoning, Respiratory Studies Late Stages of.....	386
Obstetrics, Manual of...Adv. p. xviii, Mch.; Adv. p. xxiv, Apr.		Gonorrhea, Complications of Acute.....	387
Obstetrics, Nurse's Hand Book.....	363	Gonorrhea in Women, A New Treatment of.....	424
Pasteur, The History of a Mind.....	294	Gorgas, Major General William C.....	292
Peritoneum, The	61	Government Needs Physicians.....	82
Physiology for Students of Medicine, Advanced Lessons.....	430	Harcourt, Professor George Vernon.....	52
Progressive Medicine	90, 136	Health, Duties of Boards.....	284
Psychiatric, Neurologic Examination Methods.....	30	Health Board, International.....	387
Psychiatry, Don Quixote.....	196	Honors to Medical Men.....	425
Psychology for Students and Practitioners of Medicine,		Hornibrook, Dr.....	393
Text-book	430	Hospital, Fort Wayne, Reorganizing St. Joseph's.....	281
Racial Betterment and Personal Beauty.....	296	Hospital Progress.....	281
Rectum, Handbook of Diseases.....	363	Hospital Service, Free.....	159
Surgery, Modern	92	Hospital, Waterloo, St. Francis.....	354
Surgery, Orthopedic and Reconstruction.....	295	Hospitals Where Ex-Service Men Can Be Treated,	
Surgical Clinics of Chicago, 92, 136, 195, 296, 361, Adv. p.		Survey of	354
xviii, Nov.		Insurance Companies Methods as Bad or Worse Than a	
Surgical Patients, After Treatment of.....	196	Compulsory Health Insurance System, Private.....	127
Surgical Shock and the Shockless Operation.....	296	Iowa Physicians who have been recommended by the	
Syphilis	135	Surgeon General for Commissions in the Medical	
Therapy, Reconstruction	61	Officers Reserve Corps and Assigned to Duty.....	75
United States Naval Medical Bulletin.....	197	Iowa State Board of Health.....	354
Urology in Men, Women and Children, Text-Book of....	29	Iowa State Medical Society Sixty-ninth Annual Session.....	221
X-Ray Plates and Films, Systematic Development.....	194	Iowa State University Notes.....	286, 323, 355, 389, 423
		Ischaemic Myositis	422
Carcinoma of the Rectum, Wilton W. McCarthy, M.D., Des		Jaundice, Syphilitic and Arsenical.....	421
Moines	173	Laboratory Notes, Lieut-Col. W. S. Conkling, Des Moines	325
Cerebrospinal Fluid Examination, The Practical Value of,		LaGarde, Col. Louis Anatole, An Appreciation, Dr. W. L.	
M. G. Wohl, M.D., Omaha.....	363	Bierring	321
Death, Principal Causes of.....	179	Letter Sent to the Druggists of Iowa, A.....	425
Deaf, Instruction of the, Henry W. Rothert, Council Bluffs....	109	Lice Problem, The.....	50
Deaf to the State Institution, Relation of Day Schools for the,		Lorenz, Prof. Adolf, Vienna.....	392
Henry G. Langworthy, M.D., Dubuque.....	108	Malpractice, Claims for.....	318
Des Moines Health Center, The, A. D. McKinley, M.D., Des		Malpractice Insurance, Medical Conditions Which Are	
Moines	365	Liable to Grow Out of Commercial.....	20
EDITORIALS—		Mayo Foundation, Enrollment in.....	317
American College of Physicians and Surgeons.....	282	Medical Centers in the United States.....	126
American College of Surgeons, Gift to.....	323	Medical Clinic State University of Iowa, Ninth.....	155
American Limbs, Serbian Soldiers Use.....	21	Medical and Surgical History of the War.....	426
American Medical Association, New Orleans Session.....	222	Medical Education, Money for.....	87
American Medical Schools, Students in.....	385	Medical Faculty Resign from Marquette University School	
Anesthesia Research Society, National.....	51	of Medicine	392
Anti-Vaccinationist in Poland.....	127	Medical Fees in Chicago, Increase in.....	303
Army Medical Service, Important Facts in Relation to... 83		Medical History of Texas.....	426
Arsenic Preparations in Treatment of Syphilis, Use of... 422		Medical Journals in England, Increase in Cost of.....	352
Bainbridge, Honorary Degree for Lieutenant Commander 51		Medical Men, Knighthoods for.....	49
Belgian Society of Psychiatry.....	425	Medical Men in the Legislature.....	220
Buzzard, Dr. Thomas.....	134	Medical Profession as a State Service, The.....	352
Cancer, Is Increasing.....	186	Medical Societies, Records of.....	184
Cancer of the Lip, Radium Treatment in.....	84	Medical Supplies in Serbia.....	19
Cancer, Mortality Statistics of Insured Wage Earners in		Medicine and Chiropractic.....	291
Relation to	320	Military Surgeons Elect Officers.....	49
Cancer Treated by Radium, Pelvic.....	126	Military Training, Compulsory.....	154
Casualties in Medical Service.....	87	Montreal Meeting of the American College of Surgeons	
Census of the Male Population, Physical.....	386	The	420
Charles Sumner Chase.....	425	Myositis, Ischemic	20
Child Hygiene Association Meets in St. Louis, American 321		National Research Council, News Item from the.....	423
DaCosta, Jr., Dr. John Chalmers.....(Adv. p. xviii, Sept.)		Neurosyphilis	420
Davenport Clinic, Summary of Work of.....	192	New and Non-Official Remedies, Adv. p. xviii, Jan., Adv. p.	
Davidson, Sir James Mackenzie.....	135	xviii, May, Adv. p. xviii, Oct., 280, 364	
Deaths from Accidents.....	423	Newspaper Advertising	423
Donations from Norway to Vienna Physicians.....	423	Nurse Anesthetist, The Medical Society of the District of	
		Columbia	395
		Pennsylvania Department of Labor and Industry.....	87

	PAGE		PAGE
Physicians as Unpaid Collection Agents.....	127	Intestinal Obstruction, The Pathology of, M. J. Kenefick, M.D., Algona	5
Public Health and the Liquor Traffic.....	84	Intestinal Obstruction, Treatment of Acute, Wm. W. Bowen, M.D., F.A.C.S., Fort Dodge.....	9
Radium, Pelvic Cancer Treated by.....	126	Iowa State Medical Society, D. S. Fairchild, Sr., Clinton..	347-380
Radium Treatment.....	85	Laboratories, The Laboratory Service of Divisional, Captain Lucius A. Fritz.....	16
Radium Treatment in Cancer of the Lip.....	84	Lacrimal Apparatus, The, James E. Reeder, M.D., Sioux City..	313
Radium in Dermatology.....	20	Lung Abscess, Exophthalmic Goitre and Cholecystitis Following Tonsillectomy, W. H. Rendleman, M.D., Davenport..	168
Radium, Treatment of Menorrhagia with.....	20	Malpractice Suits, The Relationship of Fractures to, C. M. Dutcher, Attorney, Iowa City.....	331
Red Cross Societies, The League of.....	344	Marriages	26, 61, 164, 191, 253, 293, 361, 397, 429
Research Council	423	Medical News..	24, 56, 89, 131, 161, 189, 229, 290, 330, 359, 393, 426
Retreat, The	354	Medical Schools, Classified Groups of, Don M. Griswold, M.D., Iowa City	228
Salvation Army, The.....	186	Mobile Hospital No. 1, Brief History of, Colonel Donald Macrae, Jr., Council Bluffs.....	118
Salvarsan by Rectum.....	425	Nephritis in the Young, Chronic, Walter L. Bierring, M.D., Des Moines	1
Salvarsan Fakes	421		
Sanatoria for Disabled Service Men, Soldiers' Home as..	392	OBITUARY—	
Sanatorium for Tuberculous Soldiers.....	219	Alden, Dr. George H.....	397
Sanitary Conference of the American Republics, Sixth International	329	Appel, Dr. Frederick L.....	397
Schiller, The Poet.....	85	Avery, Dr. Milo.....	429
Scholarships for Nurses.....	87	Baker, Dr. Edward L.....	26
Scholarships for Physicians.....	419	Belt, Dr. A. L.....	163
Service in England, Full Time Medical.....	155	Bennett, Dr. T. W.....	163
Sex Education of Girls.....	317	Birge, Dr. E. G.....	133
Shortage of Physicians.....	319	Blake, Dr. James David.....	90
Siberian Commission Reports.....	86	Bowers, Dr. J. H..... (Adv. p. xviii, Sept.)	
Speech Teacher New Form of Kindergarten.....	183	Bullis, Dr. W. L.....	90
Speech Teachers, Personality Growth in Part-Time.....	128	Byrnes, Mrs. Jennie.....	397
Sternberg, Dr. George Miller.....	397	Carson, Dr. L. B.....	191
Surgical Fees, Memorandum Regarding.....	128	Cole, Dr. T. C.....	429
Surgeon-General to Issue Medical Publication.....	415	Crawford, Dr. Alexander.....	59
Syphilis, Early Diagnosis of.....	158	Crumbacker, Dr. William P.....	292
Syphilis, The Treatment of Late.....	421	Davis, Dr. A. J.....	292
Tuberculosis Research Fellowship.....	228	Davis, Dr. Wyndon.....	293
Typhus Claims Another American Life.....	21	Earle, Dr. Edward Chancery.....	191
Typhus Exterminated in Serbia.....	86	Eschelman, Dr. George W.....	134
Typhus Raging in Europe.....	21	Finarty, Dr. J. W.....	133
Venereal Disease, Iowa State Board of Health and United States Public Health Laboratories for Control of....	160	Fitzpatrick, Mrs. M. J.....	134
Venereal Disease Laboratory.....	424	Flannery, Mrs. Joseph J.....	191
Venereal Disease Problem, Data of.....	21	Green, Dr. John S.....	292
Venereal Disease, Test of an Ordinance for the Control of	50	Grimmell, Dr. G. H.....	163
Venereal Law, Pertinent Points Relative to the.....	158	Hanna, Dr. Rebecca.....	397
War Department Sells Remaining Surplus of Hospital Bandages and Absorbent Cotton.....	423	Harding, Mrs. Grace.....	134
Warsaw Research Laboratory, University of.....	186	Harding, Dr. Mary.....	191
Woman's Clinic at the Johns Hopkins Hospital.....	51	Harlow, Dr. H. E..... (Adv. p. xviii, Sept.)	
Workmen's Compensation	425	Hatton, Dr. Sebastian C..... (Adv. p. xviii, Sept.)	
		Herm, Dr. G. G.....	429
Education in Iowa, Medical, D. S. Fairchild, Sr., M.D., Clinton	113	Hostetter, Dr. John.....	163
Epilepsy, Edward M. Williams, M.D., Sioux City.....	149	Iseminger, Dr. William.....	292
Flavine, Aqua, Paul F. Stookey, M.D., Des Moines.....	285	Johnson, Dr. F. S..... (Adv. p. xviii, Sept.)	
Gall-Bladder, Infection of the, J. E. Brinkman, M.D., Waterloo	266	Jones, Dr. W. A.....	134
Gall-Bladder from the Surgeon's Standpoint, The, Oliver J. Fay, M.D., Des Moines.....	63	Kackley, Dr. J. J.....	59
Influenza, Etiology of and Prophylactic Inoculation in, E. C. Rosenow, M.D., Rochester.....	335	Lakin, Dr. A. M.....	90
Influenza in an Army Camp, Major E. T. Edgerly, M.C., U. S. A., Ottumwa.....	31	Lange, Dr. J. P.....	191
Influenza, Bacteriology and Pathology of, Henry Albert, M.D., Iowa City.....	35	Lawler, Dr. E. T..... (Adv. p. xviii, Sept.)	
Influenza Epidemics, Control of, John H. Hamilton, M.D., Iowa City	38	Lindahl, Dr. J.....	191
Influenza: Its Symptoms and Complications, E. D. Allen, M.D., Hampton	337	McConnaughey, Dr. J. S.....	89
Influenza, Surgical Complications in 1030 Cases, Charles J. Rowan, M.D., F.A.C.S., Iowa City.....	44	Mackenzie, Dr. Kenneth A. J.....	292
Influenza to Tuberculosis, Relation of, John H. Peck, M.D., Des Moines	42	Manner, Dr. William A.....	59
Injuries of the War, Nerve, A. B. Phillips, M.D., Clear Lake..	106	Moore, Dr. Martin F.....	59
Infectious Diseases of Childhood, Sequelae of, James S. Gaumer, B.S., M.D., Fairfield.....	408	Morrison, Dr. M.....	26
Intestinal Obstruction, Symptoms of, W. A. Rohlf, M.D., F.A.C.S., Waverly	7	Newlon, Dr. John C. F.....	292
		Nelson, Dr. Mary Heilesen.....	361
		Pritchard, Dr. M. F.....	293
		Palmer, Dr. J. H.....	361
		Ramsey, Dr. G. W.....	361
		Richardson, Dr. J. F.....	191
		Risley, Dr. Samuel D.....	191

	PAGE		PAGE
Scarborough, Dr. Dallas L.....(Adv. p. xviii, Sept.)		District of Columbia Medical Society and the Nurse	
Simonds, Dr. Justin F.....	89	Anesthetist	395
Skinner, Dr. George R.....	163	Dubuque County Medical Society.....	52
Starbuck, Dr. Thomas D.....	293	Fort Dodge Medical Society.....	22
Starr, Dr. J. W.....	133	Fort Madison Medical Society.....	53, 130
Thomas, Dr. John G.....	291	Fremont County Medical Society.....	254
Thompson, Dr. Frank.....	429	Grundy County Medical Society.....	282
Torrence, Dr. Laris P.....	89	Hancock-Winnebagos County Medical Society.....	358
Townsend, Dr. Wm. H.....	59	Hardin County Medical Society.....	129, 428
Von Stein, Dr. James Polk.....	163	Harrison County Medical Society.....	187
White, Dr. M. W.....	397	Ida County Medical Society.....	129
Wuttke, Dr. Edwin E.....	291	Iowa County Medical Society.....	53, 283
Young, Dr. M.....	26	Iowa Clinical Medical Society.....	130
Young, Dr. W. R.....	59	Iowa Nurse's Association.....	23
Oration in Surgery, D. S. Fairchild, Jr., M.D., F.A.C.S.,		Iowa State Medical Society Committee on Arrangements.....	351
Clinton	257	Iowa State Medical Society, Minutes of Council.....	252
Otitis Media, Chronic Catarrhal, Fred F. Agnew, M.D.,		Iowa State Medical Society Officers 1920-1921.....	253
F.A.C.S., Independence	175	Iowa State Medical Society, Program Sixty-ninth An-	
Personal Mention—		nual Session	93
25, 60, 89, 131, 162, 190, 255, 291, 330, 360, 396, 429		Iowa State Medical Society Sixty-ninth Annual Session,	
Physician, A Sociologist, The, P. W. VanMeter, M.D., Rock-		Des Moines, Minutes of.....	232
well City	341	Iowa State Medical Society, Transactions House of	
		Delegates Sixty-ninth Annual Session.....	236
PORTRAITS—		Iowa and Illinois Central District Medical Society.....	330
Allen, Dr. William L.....opposite	93	Jasper County Medical Society.....	88, 129
Clarke, Lieutenant-Colonel James F.....opposite	82	Jewish Medical Association of Palestine.....	354
Earwood, Major Edgar R.....opposite	107	Johnson County Medical Society.....	187
Knott, Dr. John M.....opposite	123	Jones County Medical Society.....	283
Macrae, Jr., Colonel Donald.....opposite	106	Keokuk Physicians' Club.....	55, 88, 130, 188
Osborn, Captain James W.....opposite	356	Kossuth County Medical Society.....	254, 394, 428
Reynolds, Captain Harry R.....opposite	340	Lee County Medical Society.....	53, 254
Williams, Captain Frank L.....opposite	118	Linn County Medical Society.....	22, 283
Pneumothorax—With Report of Cases, Artificial, William H.		Lucas County Medical Society.....	162
Ross, M.D., Waterloo.....	373	Marion County Medical Society.....	187, 283
Psychopathic Hospital, The, Russell C. Doolittle, M.D., Des		Marshall County Medical Society.....	23, 53, 88
Moines	376	Medical Directors Association of Iowa.....	55
Psychiatry and the General Practitioner, Max E. Witte, M.D.,		Medical Society of the Missouri Valley.....	427
Clarinda	399	Mills County Medical Society.....	53
Public Health Education, The Value of, *E. G. Birge, M.D.,		Montgomery County Medical Society.....	394
Iowa City	69	Mitchell County Medical Society.....	129, 394
Radium, H. E. Meyer, M.D., Hampton.....	340	Muscatine County Medical Society.....	53
Roentgen Ray in the Diagnosis of Sinus Disease, The, Sumner		Northwestern Iowa Medical Society.....	22
B. Chase, M.D., Fort Dodge.....	404	Page County Medical Society.....	283
Sinus Infection, Chronic, Otis Wolfe, M.D., Marshalltown.....	212	Palo Alto County Medical Society.....	187, 254
Sinuses and Ears, Clinical Significance of the Bacteriological		Plymouth County Medical Society.....	54, 254
Examination of the Accessory Nasal, Margaret Arm-		Pocahontas County Medical Society.....	394, 428
strong, M.D., Iowa City.....	209	Polk County Medical Society.....	54, 129, 187, 293, 395
Skin Grafting, John F. Pember, M.D., Janesville, Wisconsin.....	181	Poweshiek County Medical Society.....	23, 54, 187, 255, 283, 428
Surgical Dressings, Iowa Corporation Manufactures.....	26	Ringgold County Medical Society.....	187, 255
		Rockwell City Physicians.....	188
		Scott County Medical Society—	
		22, 55, 88, 128, 130, 162, 187, 284, 293, 358	
SOCIETY PROCEEDINGS—		Sioux City Homeopathic Society.....	55
American Medical Association.....	55	Sioux Valley Medical Society.....	24, 284
Adair County Medical Society.....	282	Southern Minnesota Medical Association.....	396
Austin Flint-Cedar Valley Medical Society.....	23, 359	Southwestern Iowa Medical Society.....	188, 395
Boone County Medical Society.....	22, 427	State Society Iowa Medical Women.....	96
Buchanan County Medical Society.....	52	Story County Medical Society.....	188
Burlington City Physicians.....	188	Railway Surgeons Annual Meeting.....	51
Butler County Medical Society.....	254	Ringgold County Medical Society.....	428
Cass County Medical Society.....	22, 52, 427	Surgery, International Congress of.....	189
Cedar County Medical Society.....	428	Tama County Medical Society.....	55, 188
Cerro Gordo County Medical Society.....	428	Tri-County Medical Society.....	395
Cherokee County Medical Society.....	88, 394	Tri-State District Medical Association.....	326
Clay County Medical Society.....	52	Tri-State Medical Association, Officers of the.....	427
Clinton County Medical Society.....	428	Trudeau Society, Meeting of Iowa.....	96
Colored Medical Society, National.....	51	Van Buren County Medical Society.....	358
Crawford County Medical Society.....	88, 129	Waterloo Medical Society.....	55
Davis County Medical Society.....	358	Wayne County Medical Society.....	88, 255, 395
Decatur County Medical Society.....	52	Webster County Medical Society.....	23, 55, 188
Des Moines County Medical Society.....	52	Western Surgical Association.....	359
Des Moines Session, The.....	96	Woodbury County Medical Society.....	23, 88, 130

*Deceased.

Suggestions, Some, George Kessel, M.D., Cresco..... 74

	PAGE		PAGE
Surgery in Civilian Practice, The Value of Military, George W. Crile, M.D., F.A.C.S., Cleveland.....	137	Incipient Pulmonary, Arthur W. Erskine, M.D., Cedar Rapids	104
Student Health Department of the University of Iowa, C. R. Thomas, A.B., M.D., Iowa City.....	275	Tumors, Treatment of Uterine, Leda J. Stacy, M.D., Rochester	301
Syphilis, Hereditary, C. L. Barewald, M.D., Davenport.....	14	Toxemia (Epilepsy), Following Surgical Correction of Abdominal Viscera, Some Typical Recoveries in Iowa from Chronic Convulsive, Charles A. L. Reed, M.D., Cincinnati	204
Tetany, Post-Operative, Joseph H. McGready, M.D., Independence	270	Venereal Disease, Summary of the Year's Work for the Control of, Lieutenant-Colonel W. S. Conkling, Des Moines	356
Thorax, Application to Civil Practice of Therapeutic Principles Established in Treating War Injuries to the, J. L. Yates, M.D., Milwaukee.....	67	Vestibular Manifestations in Neurological Cases, W. W. Pearson, M.D., Des Moines.....	303
Thyroid, The, Charles H. Magee, M.D., Burlington.....	216	Vomiting with a Plea for the Mother, Pernicious, Paul E. Gardner, M.D., New Hampton.....	273
Tonsil Cases I Have Met, Charles P. Frantz, M.D., F.A.C.S., Burlington	309	Ulcer, Surgical Management of Gastric and Duodenal, J. E. O'Keefe, M.D., Waterloo.....	142
Tonsils, Diseased, Robert M. Lapsley, M.D., F.A.C.S., Keokuk	308	War Risk Insurance Patients, Instructions Relative to the Examination and Treatment of.....	417
Tonsillectomy, Lung Abscess, Exophthalmic Goitre and Cholecystitis Following, W. H. Rendleman, M.D., Davenport..	168	Xerophthalmia, Ralph H. Parker, M.D., Des Moines.....	71
Tuberculosis, Relation of Influenza to, John H. Peck, M.D., Des Moines	42		
Tuberculosis, Rest in, H. V. Scarborough, M.D., Oakdale.....	98		
Tuberculosis, Status of Roentgenology in the Diagnosis of			

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No. 1

CHRONIC NEPHRITIS IN THE YOUNG*

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It is possible that the term cardio-vascular renal disease would have been more appropriate since the purpose is to discuss that condition in which the clinical picture is characterized by the symptoms of polyuria, albumenuria, hyaline and granular casts, and attending cardio-vascular changes with persistent hypertension.

This corresponds to the anatomic conception of a contracted kidney variously referred to as primary and secondary contracted kidney, chronic interstitial nephritis, third stage of Bright's disease, and chronic nephritis.

Our understanding of the nature of chronic nephritis is still very indefinite and in the present state of knowledge it seems best to adhere to a clinical classification rather than one based entirely on anatomic changes.

The classification suggested by Christian seems very fitting—he designates the condition as chronic nephritis with hypertension, with arteriosclerosis, or with chronic myocarditis as the clinical picture may indicate.

While cases of chronic nephritis have occasionally been observed without attending hypertension, it is safe to assume that where a persistent high arterial tension occurs with albumenuria and other signs of disturbed renal function, a state of contracted kidney exists.

It has been customary to associate this condition with the later years of life, appearing then more often as the result of the action of chronic irritants as alcohol, lead, metabolic products, than as the terminal stage of a preceding acute nephritis.

Chronic nephritis is often classed with the condition of arterio-sclerosis and as such is a criterion of age, it being equally proper to say "a man is as old as his kidneys," as to use it in a similar sense in relation to his arteries. By reason of this conception it may be of interest to

refer to several instances of this condition that were observed at ages before the usual period of "wear and tear" can be considered.

Case No. 1—Girl eleven years of age; chronic nephritis, hypertension, hemorrhagic retinitis, uremia. Examined July 15, 1913, through the courtesy of Dr. Eli Grimes, Des Moines, to whom I am indebted for these clinical notes.

Jennie G., female, aged eleven years, school girl, native born, the third child of a family of three children. Father died at age of thirty-three years of sudden death simulating apoplexy, but had always been in good health. Mother, brother and sister living and in good health. Patient has never been exposed to tuberculosis; no history of scarlet fever or tonsillitis, regarded always as having the best of health.

Present Complaint—Severe headache and frequent voiding of pale urine, preventing attendance at school during the last three months.

The patient is of the apophyseal type, having large bones and joints. The facial expression is characterized by a peculiar "old look." The physical examination is negative, except a marked hypertrophy of the left ventricle, accentuated second aortic tone, and increase in arterial tension, the systolic pressure being 210 m.m. and diastolic 140 m.m. The urine is clear, specific gravity 1008, albumen present in large amount, with a sediment containing a considerable number of hyaline casts and epithelial debris.

The patient was kept under observation at home for a time, and admitted to the Iowa Methodist Hospital September 26, 1913. While in the hospital the blood-pressure ranged between 220 m.m. and 250 m.m. systolic, and 140 m.m. and 160 m.m. diastolic. A hemorrhagic retinitis was noted at this time. The polyuria with albumen and casts persisted throughout this period. During the week preceding her death epistaxis occurred several times, and a diffuse purpuric eruption developed on the trunk and limbs. Death occurred during a uremic convulsion on October 9, 1913.

Case No. 2—Girl fifteen years. Chronic nephritis, hypertension, hemorrhagic retinitis, uremia. The patient was seen through the courtesy of Dr. C. M. Whicher of Des Moines. Admitted to I. M. H. November 13, 1918. Extrance complaint—frequent urination, backache, nausea and vomiting, disturbance of vision, paleness of skin, general weakness. Duration of illness about eighteen months.

*Presented at the Sixty-Eighth Annual Session, Iowa State Medical Society, May 7, 8, 9, 1919, Des Moines, Iowa.

Social and Family History—School girl, fifteen years of age. Father alive, has stomach trouble; mother died at thirty-two years of age of Bright's disease. One brother and one sister alive and well. Had measles and chicken-pox as a baby; sore throat and ear ache frequently before the removal of tonsils and adenoids at five years of age.

Menstrual function not established. In the summer of 1917 albumen was first discovered in the urine, although not acutely ill at the time. Became more nervous, and irritable, tired easily, and pallor of skin was more marked. Polyuria, nausea and vomiting became more troublesome, and during the past month has vomited regularly every morning. For two weeks vision has become blurred, finally being unable to read at all.

Present Condition—Young girl, appears rational, poorly nourished, very pale. Slight oedema of the eyelids, ophthalmoscopic examination (Dr. Werts) reveals a hemorrhagic retinitis. The tongue is coated, pyorrhoea is not present. Tonsils are removed. Chest—symmetrical, expansion equal. Lungs normal. Heart—hypertrophy of left ventricle; soft mitral systolic murmur. Accentuated second pulmonary and aortic tone. Arteries firm and wiry. Arterial pressure systolic 210 m.m., diastolic 120 m.m. Abdomen retracted, liver and spleen not palpable. No ascites. Extremities slender, slight degree of tibial and malleolar oedema.

While in the hospital during a period of four weeks, the polyuria continued, the urine was of low specific gravity and contained a large amount of albumen and numerous casts in the sediment. The anemia was of the secondary type. The hypertension persisted. Periodic attacks of air hunger became very distressing and death occurred as the result of uremia on December 12, 1918. An autopsy was not obtained.

Case No. 3—Girl, eighteen years, chronic nephritis with hypertension, polyuria, albumenuria, uremia.

This patient occurred in the service of Drs. Fay and Page, Des Moines, and I am indebted to them for these clinical notes. Admitted to Iowa Methodist Hospital August 19, 1916. Entrance complaint—severe headaches during past year, relieved by aspirin; frequent urination, arising from one to five times at night.

Social History—Eighteen years of age, recent graduate of high school. Family history negative.

No previous illness except light attack of scarlet fever at five years of age with complete recovery.

Physical examination: No abnormal changes except a marked hypertrophy of the left ventricle and accentuated second aortic tone; firm arteries with a blood-pressure of systolic 250 m.m. and diastolic 175 m.m. The urine was of low specific gravity, 1006-1008; large amount of albumen and moderate number of hyaline casts in the sediment.

The patient remained in the hospital for two weeks, after which was under observation at her

home, death occurring from uremia November 22, 1916.

Frequent examinations were made of the urine, and the findings of low specific gravity, polyuria, large amount of albumen and varying numbers of granular and hyaline casts remained much the same, and the high systolic and diastolic arteries pressure was maintained during the period of observation.

Case No. 4—Male twenty-three years, chronic nephritis, hypertension, arterio-sclerosis, hemorrhagic retinitis, migraine, cerebral hemorrhage.

Patient referred for examination by Dr. I. D. Kauffman of State Center, Iowa, with the complaint of severe headaches, nausea and vomiting over a period of nine months.

Social and Family History—Age twenty-three years, farmer, married, wife living and well. No children. Father and mother alive and well. Mother had migraine from eighteen to forty-two years of age. Aunt of patient (mother's sister) Mrs. C. F., examined here February 19, 1918, age thirty-three years, diagnosis chronic nephritis with hypertension and arterio sclerosis, died January 1, 1919 from cerebral hemorrhage. An uncle of the patient (mother's brother) Mr. Geo. H., examined April 24, 1918, age forty years, diagnosis chronic nephritis with hypertension, chronic pulmonary tuberculosis, epileptiform attacks died December 3, 1918 from cerebral hemorrhage. Four brothers living aged sixteen, twenty-five, thirty and thirty-two years, the youngest having periodic severe headaches. The patient has had no previous infectious diseases. Constipation has been present for many years.

Present Condition—Young man, pale, poorly nourished; skin dry, no icterus, no oedema. Eyes—pupils equal, react to light and accommodation. Ophthalmoscopic examination reveals tortuous retinal vessels, with a few hemorrhages on the left side. The tongue is heavily coated; pyorrhoea not present; tonsils not enlarged. Lungs normal. Heart's area increased to the left. No murmurs, accentuated second aortic tone. Arteries tortuous, walls wiry, sclerotic, pressure—systolic 200, diastolic 130. Abdomen rounded, well muscled, palpable tenderness over gall-bladder. No ascites.

Blood Examination—Hgb 70 per cent. red cells 3710000, leucocytes 6800; differential count, polymorphonuclears 68 per cent., lymphocytes 32 per cent.

Urine—Clear, acid, specific gravity 1006, albumen present in large amount, no sugar; sediment contains many hyaline and granular casts.

The patient passed from observation and would not cooperate in any plan of treatment, and died September 4, 1918, with the symptoms of cerebral hemorrhage.

It is unfortunate that autopsies were not obtained, but the clinical picture in each of the four cases was so striking that the diagnostic conclusion seemed justified in each instance.

The ages represented are eleven, fifteen,

eighteen and twenty-three years, respectively. The onset in each instance was gradual and insidious; the distinctive subjective symptoms were severe headache, nausea, vomiting, polyuria, loss of weight and strength; albumenuria with casts, in a urine of low specific gravity; cardiac hypertrophy and arterial hypertension prevailed as the clinical signs. In Case No. 4, aged twenty-three years, a marked peripheral arterio-sclerosis was present.

A preceding acute nephritis could not be established in any of the cases. The familial tendency was noted in the Case No. 1, where the father died at thirty-three years of a sudden death simulating apoplexy, in Case No. 2, where the mother died at thirty-two years of nephritis, but specially marked in Case No. 4 where an aunt of the patient thirty-one years of age, and an uncle forty years old, upon examination revealed a condition of chronic nephritis with hypertension, death occurring in each instance from cerebral hemorrhage.

The fact that Case No. 2 had been previously considered as entero-colitis with anemia, and Case No. 4 as cholecystitis, constipation and migraine, indicates the possibility of diagnostic error.

Only two of the four patients remained under observation long enough to permit instituting any definite plan of treatment. Active eliminative measures, rest, restrictions in diet with vasomotor relaxants, produced some improvement in symptoms, but apparently did not influence the course of the disease condition or avert the fatal outcome.

The nature of chronic nephritis as a pathologic condition is still not very clear. Occurring as the terminal stage of a preceding acute nephritis, it resembles an inflammatory process, but in most instances this preceding acute inflammatory stage is lacking and it thus corresponds more closely to the other types of visceral cirrhosis characterized by a primary degeneration of the parenchyma with subsequent replacement fibrosis.

When such a condition occurs during the later years of active life, it appears as a natural consequence of that period when parenchymatous structures begin to show the effect of various chronic irritants, leading to fibrosis and alteration in function. When the same, though manifests itself during the second and third decades, it suggests that the tissues are primarily at fault. Osler has aptly said that the "integrity of a man's arteries are dependent on the kind of blood-vessels inherited and the strain to which they are sub-

jected during life," which dictum can be equally applied to man's kidneys.

The familial tendency organized in connection with the condition of nephritis offers a further support of this statement.

The observations noted in connection with the four cases cited herewith indicate that the condition of chronic nephritis with persistent hypertension usually regarded as peculiar to the ages of later adult life, can occur at a much younger age, and this forms the reason for this brief paper.

Discussion

Dr. C. P. Howard, Iowa City—I have not prepared a formal discussion, and am quite unprepared to say anything on this paper. Of course, we are all interested in nephritis; it is still one of the burning questions of medicine, although it has been burning for rather a long time we will admit. The group of cases to which Dr. Bierring has made reference this afternoon is an interesting one. We have had the misfortune to see quite a series of them because they occur in every hospital and consultation practice. These are the cases to which the consultant is called, usually to share responsibility with the family physician. I know of no group of cases which is more unsatisfactory to treat. And if I have anything to say on the spur of the moment it is possibly as to the therapy. I have found that there is still in existence in the medical profession of this state as well as elsewhere a very strong prejudice in favor of the idea that the proper treatment for these cases is the milk-and-egg diet. Where the superstition came from it is hard to say, except I believe that two or three decades ago it was customary to treat the acute nephritis of scarlet fever by the so-called bland diet which was largely milk and eggs. I think Dr. Bierring will bear me out in the statement that for this group of cases no worse diet could be chosen because of the very high protein content of milk and eggs, and if during the last ten or twelve years I have learned anything in the study of these cases it is that they do not tolerate a high protein diet. The object of any treatment should be to provide the greatest amount of nourishment possible with the lowest protein content. You can keep your patient very much more satisfied on the high carbohydrate diet, as well as do very much less harm to the kidney. It is our habit to give such things as rice and tapioca, with all the fruits and vegetables that one can name, to restrict the milk to the minimum, and to give them cream for their tapioca and oatmeal and other cereals, or if they cannot get cream to permit as little milk as they can possibly get along with. We ask them to restrict the ingestion of water to the intervals between meals, and we do not force water upon them at any time. By such an allowance one can keep the protein intake down to two or at the outside three grams per diem. The ordinary milk-egg diet, which was in common use a few years ago gives

at least fifteen grams per diem, or five times more protein than the carbohydrate diet. Moreover the milk-egg diet is very tiresome to any patient. So far as the other therapeutic measures are concerned I have little to say. Regulation of excretion by the alimentary tract should be guided largely by the patient's proximity to uremia, but we find it safe to order at least two or three times a week a teaspoonful to two teaspoonfuls of Epsom salts every morning before breakfast and so procure at least two or three watery evacuations therefrom. Keep the skin in a state of activity by taking, two or three nights a week, as hot a bath as the patient can comfortably get into, followed by a brisk rub. In that way we have taken care of three portals of excretion and controlled the diet, which is about all that can be done. Another question is whether agents which act to decrease the blood-pressure are indicated. Most of us are unanimously agreed upon the questions appertaining to blood-pressure, and we do not think that a blood-pressure of 150-170 in a case of renal disease is at all injurious; it is a result of the renal process, and to knock down that blood-pressure does not, I believe, accomplish anything. We do, however, give small doses of potassium iodid and occasionally iron in some form. Of course, the prognosis is ultimately, if not immediately, of the gravest. I have never seen a case such as Dr. Biering has described recover; I have never seen a case that has reached the stage of neuroretinitis live two years; I think more often it should be a six months' prognosis. The cases that form the most hopeless group in my experience in medicine have been those that Dr. Biering has so well described.

Major D. J. Glomset, Des Moines—I simply want to say that during the last year I have examined some eight hundred kidneys taken from soldiers who died from different conditions. Approximately 5 per cent. of these kidneys showed more or less of a chronic interstitial nephritis, most of them less, however. I do not know whether or not there was any clinical evidence of a chronic interstitial nephritis present in those cases, but do not think so because the lesions were rather slight. In only five pairs of kidneys was the condition sufficiently advanced to have reduced the weight of the kidneys below normal.

Dr. C. F. Wahrer, Fort Madison—I would like to ask Dr. Biering what emphasis he places upon the Martin Fisher salt-free diet in these cases. I hardly feel competent to add anything to the paper, especially as to the limitations which confront us when we find such extreme conditions in the young. These conditions are always grave, and present to us a multiplied problem of a symptom complex, if I may use that old trite expression, which is as puzzling almost as diabetes. And yet, unless these cases are of the peculiar type mentioned by Dr. Biering, many of them respond very kindly to the proper therapeutic treatment. But I said unless they come under this particular head. If the discussion must be limited absolutely to the cases selected by the es-

sayist, I feel very much like the man who just discussed those cases, and that is this: That they very seldom yield us anything but a deferred hope which finally comes to nothing. It is one of the things that is the sorrowful part, the dark part, of a doctor's life—that he has to treat such conditions and give such a prognosis as he is compelled to give. However, there are limitations to the exact lines of diagnosis, and for the sake of the hope that may lie in the fact that the cases of this character do not all come under the hopeless condition that the four cases recited to us do, we should, of course, do all we can to turn our efforts to the best account possible. All these nephritides, all these cardiovascular conditions are the ones that take up our spare time if we have such a thing as that worry us nearly to death, and tend to shorten not only the patient's life, but the doctor's as well. It is very difficult to discuss conditions like these when nothing but hopelessness stares us in the face, except that we might as we pass along life's pathway and come across so many conditions that may ultimately lead to such developments, be able to warn the parents; (but they will not listen to us)—oh, yes, they do listen a little better than they did twenty-five years ago. Following measles, scarlet fever, and other conditions of that sort, we should warn the parents that their children are liable to develop certain conditions; and especially should we refer them to the dangers of the many focal infections that a child is subject to—tonsils, teeth, adenoids, and what not, that may ultimately, by proper treatment, be converted from the potential danger of developing from a hopeless affection into a more nearly normal condition. To work intelligently as well as hopefully in such cases has often saved lives, when a more pessimistic view has often shut off a healthful vision that would be beneficial to our patient and be reflected healthfully upon ourselves.

Dr. Biering—My purpose in calling attention to this condition in the young is simply to illustrate the difficulties that might occur in a diagnostic way. I was interested in hearing what Dr. Glomset said of his military experience in relation to this subject, in that he found a considerable number of kidneys in young soldiers that showed signs of renal sclerosis. We have observed arteriosclerosis in very young people, therefore it seems possible at least that various parenchymatous structures may undergo an early sclerosis and thus show symptoms of renal insufficiency and a chain of symptoms corresponding to chronic nephritis with hypertension and myocardial changes. Dr. Howard has referred at length to the subject of treatment of these conditions, and I am glad he has brought before you a more logical method of dieting these patients. I think here is another instance indicating that we must consider the conditions surrounding the case and the limitations involved, and endeavor to find that form of diet and mode of living which is most adapted for the particular patient. I am sure that the diets containing a large amount of proteid have not only

been injurious, but they have added to the discomfort of the patient. I do not like to hear reference made to the hopelessness of these cases. We will admit that this is a condition which naturally has a fatal ending, but we do know that frequently these patients live ten or fifteen years after the first symptoms are manifest. I am sure it is worth while to bring about a better circulatory and nutritive balance if it may add six months, a year, or several years to the patient's life. We are concluding naturally that in the changes that take place in these kidneys, the man is gradually giving up one glomerulus after another, and he must accommodate his mode of living to the lack of kidney function. He can do that naturally very well, as the trouble usually occurs at a time of life when activities can be limited. A better plan of eating, a more quiet mode of life, and unloading of responsibility, often bring about remarkable results. You have all known of bankers, merchants, lawyers, men who have led an active life, that have left their business cares and gone to southern California, who have been relieved of their disturbances in circulation and nutrition and have lived for a number of years in comfort. Any treatment that will bring about that result would seem to be worth while. I do not believe that our duty ends by simply making a diagnosis and an unfavorable prognosis and then letting the case take its course.

THE PATHOLOGY OF INTESTINAL OBSTRUCTION*

M. J. KENEFICK, M.D., Algona

A search for the rapidly fatal termination of cases of intestinal obstruction has brought many scientific investigators in the realms of physiology, bacteriology and pathology into this field within the past decade. Possessing little knowledge of bacteriology and less of pathology I have nothing original to offer and therefore must inflict upon you a short review of some recent literature on the subject.

The theories advanced to explain the cause of death in so short a time from the onset of symptoms are four in number, viz.:

1. Splanchnoparesis, or reflex nervous action in the cardiovascular centers.
2. Bacterial invasion outward from the intestinal lumen into the peritoneum or into the blood itself.
3. Dehydration or excessive loss of water from the tissues through drainage into the intestinal lumen followed by persistent vomiting.
4. *Auto-intoxication* or the absorption of various poisons from the intestinal tract.

Each of the four theories has its advocates but the fourth or auto-intoxication theory seems the most generally accepted at present.

1. The first theory of strict sympathetic nervous reflexes is now no longer held tenable since in duodenal obstruction, in which there is very little dilatation, the animals soon succumb, but survive low iliac obstruction in which there is marked over distention, or survive even the isolation of the intestine from its various ganglia. The first theory finds very few supporters.

2. Bacterial infection or outward passage of bacteria through the intestinal wall; invading the peritoneum and producing a peritonitis or invading the blood and lymphatics and producing a septicemia. Advocates of this theory base their conclusions on the finding of the bacillus in the peritoneal cavity and blood after ligation of the colon and of the small intestine.

Howell in the British Medical Journal presents the most unique defense for the theory of direct bacterial invasion. He assumes that the complex in high intestinal obstruction is initiated by the increased permeability of the intestinal wall to bacteria and that consequently the site of production of the poison and its absorption is the peritoneal cavity. The bacteria, he contends, can not be in evidence outside the intestinal lumen, because it is one of the functions of the peritoneum to destroy bacteria. In support of his theory, Howell cites the ease with which the migration of bacillus coli from the colon and cecum may normally occur across the body cavity, with resultant infection of the bladder of quiescent ovarian cysts and pyosalpinx but without producing peritonitis.

3. Dehydration or excessive loss of water from the tissues.

Advocates of this theory hold that death in uncomplicated cases of intestinal obstruction is always due to dehydration of the tissues as a result of the transudation of fluids into the intestinal lumen followed by vomiting. In confirmation, they point out that life in such cases, may be indefinitely prolonged by restoring the fluids through the subcutaneous injection of normal salt-solution.

4. Auto-intoxication.

This, at present, the most popular general theory, embraces several forms variously seeking the source of the intoxication.

First, in the Stagnation of Food Materials and Secretions—Among the various sources of intoxication sought to explain the symptoms of ileus, the absorption from the intestines of the products of stagnated foodstuffs and intestinal secretions,

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early attracted the attention of the physiologist. Bouchard was the first to emphasize this point of view, contending that the stagnation of intestinal contents resulted in the production of poisons which have a special affinity for the nervous system. Later investigations, however, have shown that the role played by food stagnation to be negligible, inasmuch as neither preliminary starving of the animal, nor through irrigation of the isolated loop results in any marked prolongation of life.

Second—*Bacterial Origin*—Among the most noted earlier investigations to seek the auto-intoxication in a bacterial source are Clairmont and Ranzi, 1904, who produced low simple obstruction in dogs and cats. They found that the injection of filtered contents as well as the injection of cultures grown from the intestinal contents always produced the typical symptoms of ileus. Later, 1907, McClare and McCallam repeated the work by means of simple ligation, or by isolation of loops at various levels, carefully eliminating stagnant food and intestinal secretions as possible factors. The loops became greatly distended and incubated enormous numbers of bacteria, death usually supervening in a few days, often independently of perforation and peritonitis. Injection of the filtered contents of the loop into the peritoneal cavity of normal dogs, reproduced the typical symptoms of ileus but did not cause death.

4. Murphy and Brooks, (Arch. Int. Med. Vol. 15-392) are the most recent and well known advocates of the theory that death after intestinal obstruction, is the result of a bacterial toxemia, independent of peritonitis or septicemia. They held that the factors which make absorption possible, are more important than the factors which produce the toxin. The toxic substance therefore, is assumed to pass only through abnormal membrane. The chief factor in permitting this absorption consists of an interference with the circulation of the obstructed intestine. Thus, they believe it is the marked secreting activity of the duodenum and jejunum with the resultant rapid distention and circulatory disturbance which results in earlier and severer symptoms than similar obstruction in the ileum. The symptoms and pathologic lesions following administration of such loop contents are found to be identical with those following certain ptomain poisons. The chief argument advanced against the bacterial theory of auto-intoxication, are based on the fact, that the onset of the symptoms in the high intestinal obstruction is too rapid for

bacterial toxemia and that high obstruction is more severe and fatal than low, although a much scantier bacterial flora is found in the high intestine.

Chief among the opponents of the theory of bacterial intoxication are Whipple, Stone and Bernheim, who contend that the production of the toxin is due to a perversion in the activity of the secreting mucosa of the duodenal or high intestinal loops, this taking place even in the absence of demonstrable changes in the mucosa.

Roger, 1906, had already referred the source of the toxin to activity of the intestine itself and demonstrated the presence of a proteose in the occluded loops but claimed that the products of the normal unobstructed intestine were more toxic on injection than of the obstruction.

Davis similarly found that products of washed out apparently normal draining loops, produce the symptoms of ileus on injection. This lead him to ascribe an excreting function to the intestinal mucosa as the source of the toxic substance. Whipple finds that preparations of normal intestinal mucosa are without marked toxic effects on injection. He holds that the chief source of the elaboration and absorption of the poison, is in the mucosa and not the lumen, citing in chief support the fact, that even dogs with draining loops, may die, or if surviving, develop an immunity to the toxin.

4. Tissue Autolysis.

Gurd, while endorsing Whipple's position that the substance responsible for the toxic symptoms is the result of tissue autolysis. His experiments have shown that even autolyzed normal mucosa is just as toxic as preparations of loop mucosa.

5. Chief among the defenders of the purely physiologic cause of the intoxication as opposed to the pathologic or bacterial is Draper who believes that symptoms are referable to a disturbance in the balance between the secretions of the duodenum and jejunum. He found that obstruction within a limit of 35 c.m. from the pylorus were always incompatible with life, and refers death to the retention of some toxic secretion, probably pancreatic, which normally would be detoxified lower down by the protective jejunal or ileal auto ferments. Mathews, by a somewhat similar series of experiments in which he eliminates all pancreatic and gastric secretions as well as biliary, was lead to arrive at the same conclusion as to the necessity of a mutual interaction between the secretions of the duodenum and jejunum.

6. The abnormal absorption of poisons as a

result of damage to the intestinal wall, Hartwell and Hogent claim that symptoms are always due to the presence of lesions which favor the abnormal absorption of toxins normally present or that have resulted from stagnation.

McClintock of Iowa University in a paper read before this Society last year, at Ft. Dodge, gives his conclusions as to the origin of the toxic substance, based upon experimental obstruction in over 300 animals. He concludes, first; that food stagnation is not an essential factor as food free loops are rapidly fatal.

Second, that the toxic substance is not necessarily or solely derived from any or all of the digestive secretions.

Third, that as to the nature of the toxine the evidence is not definite at the present time.

Finally, of perhaps decisive importance, is the work of Dragstedt, Moorehead and Burchy in the *Journal of Experimental Medicine*, vol. xxv.

The distinctive merit of these workers lies in their success in securing complete sterilization of the isolated loops by washing with ether. The closure of such loops was found compatible with life for indefinite periods, even when involving great distention and marked necrosis, and when completed by ligation of all the blood vessels of the loop. Their findings would seem to indicate two distinct but complimentary factors in the toxemia; first, the presence of bacteria of whatever nature; second, the presence of necrotic tissue as a substance for the elaboration of the fatal toxins through the action of these bacteria.

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SYMPTOMS OF INTESTINAL OBSTRUCTION*

W. A. ROHLF, M.D., F.A.C.S., Waverly

This paper will contain nothing new or startling along the line of symptoms of intestinal obstruction. We will consider briefly the general symptoms and incorporate some experiences. Clinically at least, the symptomatology resolves itself into the consideration of the acute and chronic forms of obstruction. Because of the etiology and the frequent source of obstruction being the result of peritonitis, adhesions, typhoid or t.b. ulcerations, past operations or other trau-

matic injuries, it is well to get the minute past abdominal history.

We all know that pain, vomiting, constipation, collapse, and abdominal distention may be considered the cardinal points in the symptomatology of intestinal obstruction. In sudden acute obstruction, the pain is intense, described as crampy, colicky, agonizing and usually spasmodic in the beginning, but soon becomes more constant with spasmodic exacerbations. In sudden absolute obstruction there is hardly any remission from pain. Sudden relief from pain would indicate a release of the obstruction or approaching death. The location of the pain is not a criterion as to the location of the lesion, but may be relied upon somewhat later in the attack.

Vomiting, we regard as a constant and distressing symptom of all acute obstructions and sometimes even may precede the pain. The material vomited consists first of stomach contents, then becomes biliary and finally fecal. We should of course make the diagnosis, if opportunity is given, before the fecal vomiting occurs. During the last stage of the affliction vomiting may as such, cease and resolve itself into almost effortless regurgitation. The early frequency of the vomiting helps in a degree to determine the location of the lesion, for the nearer to the stomach the more frequent the vomiting, and even at times fecal vomiting does not occur. I wish to suggest that some at least of the cases of acute dilatation of the stomach might be considered a form of obstruction, and here fecal vomiting would not occur. We all know how important it is to recognize this condition, and how in most cases the treatment is so satisfactory if the symptoms are recognized early.

Constipation in the acute form is of course complete, except that after the accident, the large bowel may contain some fecal matter that repeated injections may bring away.

Collapse is perhaps the condition that holds a place in the diagnostic symptoms as important as the pain and vomiting just considered. The patient's condition due to shock or collapse is soon manifested by the anxious expression, almost always weak, rapid pulse, subnormal, normal or at most slight elevation of temperature, cold extremities, livid complexion, cold sweat and general exhaustion. The tissues seem to melt away with the loss of fluids, dry tongue, small urine excretion, and this early contains indican, if the obstruction is in the small intestine.

A rather constant and dependable symptom in the diagnosis, is the want of abdominal rigidity

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as a constant condition in the first hours of an acute obstruction of the small gut. During the spasm of pain the muscles are rigid, with relaxation the pain subsides. We know of course that rigidity is constant after peritonitis begins and the tissues suffer from inflammation. We might mention that in thin people inspection may aid the diagnosis as violent peristalsis can often be seen through thin abdominal walls. Percussion sometimes assists, the tympany may be marked and will be pronounced unless the lesion is in the upper part of the intestinal tract, or when a loop of gut is involved there will be a local tympany and distention, in accordance with the length and location of the imprisoned gut. Later, palpation will reveal effusion of increased abdominal fluid with dullness in the flanks.

Volvulus of the large intestine has some rather distinctive symptoms as a rule. It is more frequent in advanced age, vomiting is a late condition, pains may be very acute at the onset, distention soon becomes extreme for obvious reasons, the low obstruction, the less frequent vomiting, the retention in the whole intestinal tract of material leads to distention. Here marked tenesmus may occur with slight bowel movement at first but absolute constipation soon supervenes. While the onset is not so severe, later the toxemia is greater, pulse and temperature at first little affected, later becomes markedly so.

A word about intussusception: Children are more prone to this form of obstruction. The onset is sudden as a general thing. It may wake the child from a sound sleep. At first the spasmodic pains come at longer or shorter intervals. The child may scream with pain and then resume his play for a brief time to be again disturbed by the spasm of pain. This is soon followed by more or less continuous distress and vomiting. The condition is aggravated by the mother's dose of oil or other cathartics. Vomiting is increased and some intestinal paralysis supervenes. Rigidity of abdomen is not constant, and palpation may reveal the tumor formed by the invaginated portion of the intestine. If the invagination is into the colon, the small bowel may appear at the rectum. Bloody and mucous stools may occur. However, we wish to emphasize a practically positive condition always to differentiate from appendicitis, for example, that the temperature is normal or subnormal at the beginning of the attack and the pulse rate is little disturbed and no leucocytosis. The tumor is usually movable and if located near McBurney's point should not be mistaken for an appendix, for this tumefaction if present, is not movable and would never occur

without increased pulse and temperature and leucocytosis.

In discussing obstruction from gall-stones, I hope to be forgiven for relating my experience with three cases, the only ones I have seen. These occurred within a period of six months. All three were in elderly rather corpulent women. All three gave a decided gall-stone history extending over a number of years. The first case came to my notice about twelve hours after what was supposed to be another gall-stone colic attack. Her vomiting was frequent and severe, her pain agonizing and spasmodic, no distention except in the upper right abdomen. She stated that her pain seemed to move on after some of the severe spasmodic attacks. No temperature, but rapid pulse. Operation disclosed this gall-stone about twelve inches below the pylorus.

The second case was absolutely similar, and operation disclosed this gall-stone about thirty-six inches from the pylorus.

The third case was seen sixty hours after the beginning of the attack. She also mentioned the same symptom as to the sensation of having something move onward after the severe attacks of pain. With this same story in the two previous cases, we made a diagnosis of obstruction due to a gall-stone and the operation disclosed a correct diagnosis.

In general, a decided gall-stone history, the usual obstructive symptoms, rather localized tympany and rigidity, would suggest such an obstruction. It is self evident, however, that the localizing of the tympany, pain and rigidity would be less evident if the stone or enterolith should obstruct near the ileo-cecal valve.

Another experience I had was to make a diagnosis of intestinal obstruction in a rather corpulent person, and on operating found the obstruction due to a small knuckle of gut strangulated in a femoral hernia. My patient made a good recovery. This case is mentioned to suggest the importance of keeping in mind the need of investigating for strangulated hernia whenever the symptoms of intestinal obstruction are present.

We all of us no doubt, have had cases of tabes dorsalis that during a crisis have simulated acute intestinal obstruction, but we would hardly be mislead entirely for the symptoms of the nerve lesions would clear up the diagnosis. As to leucocytosis in acute intestinal obstruction, it is possibly safe to say that in the early stage a decided increase would not be expected. We all know that later when intensive inflammation or peri-

tonitis are present there will be a corresponding increased leucocyte count.

Clinically, perhaps, it has no decided value as the diagnosis in the interest of the patient should be made before extensive toxemia and inflammation occur.

A word regarding a few chronic obstructions. A patient past middle life with chronic constipation gradually getting worse accompanied with crampy pain and with blood present at times in the stools, who has a gradually increasing emaciation and anemia, we would surely suspect of having cancer. A palpable tumor would convince us still more. We would finally have the picture of complete obstruction perhaps with vomiting, pain, distention, rapid pulse, toxemia and finally temperature and death.

Occasionally diarrhea may occur in gradual obstruction from cancer as well as in case of fecal impaction. In fecal impaction the tumor mass that should be present will have a doughy yielding feel to it. Fecal impaction we would look for in elderly people. A history of constipation gradually increasing to a degree of complete obstruction with the usual symptoms but here rapid pulse and temperature may be present. These cases often progress rapidly after complete obstruction and the appearance of the acute symptoms.

In closing, I would suggest that there are some other forms of acute obstruction that have no distinctive symptoms, for instance, obstruction from mesenteric thrombus and various internal hernias, will be found on operation or post-mortem, diagnosis or otherwise. The need is not so much to make an absolute preoperative diagnosis as to recognize early the symptoms of acute obstruction and give the surgeon and patient a chance.

First—May I suggest that a careful past abdominal history be taken in all these cases for previous intra abdominal inflammations as an important element in the symptomatology of intestinal obstructions.

Second—That the most important symptom, namely; normal, subnormal, or at most a slight temperature is the rule in the early stage of these acute cases.

Third—Cathartics, of course, should not be given. If, however, cathartics have been given, the symptoms are aggravated.

Fourth—It is so self-evident that no plea is necessary to urge the importance of the early recognition of the symptoms of acute intestinal obstruction.

TREATMENT OF ACUTE INTESTINAL OBSTRUCTION*

WM. W. BOWEN, M.D., F.A.C.S., Fort Dodge

The treatment of intestinal obstruction resolves itself into acute and chronic cases. With the chronic cases this paper has nothing to do.

Acute cases are to be considered as early and late cases. In this they are like other acute abdominal infections, but there are problems connected with obstruction that are peculiar to obstruction alone. The time when a case is early or late is hard to determine and can not be said to be any number of hours. Twelve hours has repeatedly been used as the dividing line between early and late cases, but this arbitrary division is impossible except as a rough working basis, because one case will be further advanced in twelve hours than another case will be in thirty-six. This is especially true when there is a strangulation. It is well to say here that there may be a simple obstruction of the bowel, by which we mean simply a prevention of the onward flow of the bowel contents; or a strangulation, by which we mean an interference with the circulation in the bowel walls. Unfortunately the term intestinal obstruction is commonly applied to both these conditions, the same as strangulation is applied to an incarcerated hernia which may not be strangulated at all.

Whether a case is early or late can only be determined on the operating table and upon the correct determination of that point depends everything that follows, the plan of operation, the subsequent treatment and prognosis.

The operation of an early case requires but one thing and that is to relieve the obstruction. But care must be taken to see that the obstruction is surely relieved. The division of one band may relieve the obstruction at that point, but there may be other bands present which require division; or there may be two or more bunches of adhesions or kinks or any other obstructing thing each of which requires attention. It frequently happens in operations for hernia that the hernia mass is reduced readily and drops back into the abdomen and the obstruction not be relieved at all. If there is the least question of doubt on this point the abdomen must be opened and the herniated bowel examined. Repeatedly Dr. Evans and I have found the bowel held in a mass of adhesions and the obstruction unrelieved. Several times we found the appendix in the mass; once it

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was gangrenous and twice we found a portion of the bladder in it, and in one of these the bladder had been opened in reducing the hernia. In each of these cases we would have had a fatality if we had not opened the abdomen.

Late intestinal obstruction is the most serious condition with which the abdominal surgeon has to contend. It has the highest mortality and the most serious after consequences. It has all the bad things that the other abdominal conditions have and also several even worse ones of its own. The worst of these is the presence of enormous quantities of toxins in the obstructed bowel, which toxins are absorbed and kill the patient within a few hours or a few days notwithstanding that the obstruction is released, and any operation that does not provide for the removal of these toxins is pretty certain to be followed by disaster, and even doing all that our art knows how to do, there still remains an inordinately high death loss. The first thought of the surgeon is to relieve the obstruction and in the large majority of cases that is the correct procedure especially if it is caused by bands or adhesions or anything that can easily be removed, but there are many cases where removal of the obstruction will require much time and be of itself a formidable operation, while the patient himself is not in condition to stand such an operation, as for instance, where there is gangrene of the bowel or an irreducible intussusception where it is necessary to resect the bowel. In such cases it is safer to leave the obstruction unreduced and to deal with the toxins alone until the patient is in condition to stand the resection and then do it at a later operation. But if it is determined to do the resection or an entero-anastomosis or any other formidable operation to restore the alimentary current, that is not sufficient to save the patient; the toxins must still be dealt with.

Short circuiting the bowel around an obstruction is never sufficient unless the short circuited loop is drained and in late cases the bowel above the loop must be drained also.

There is but one way to remove or control the toxins in the obstructed bowel, that is by draining the bowel and the drainage must be to the outside of the body.

No kind of drainage can remove all the toxins, so that even after any drainage the patients often die from toxic absorption. In extreme cases they already have such a load in them that they can not over come it and they continue to absorb more until it is all drained out, if they live that long.

It is remarkable that one can not tell much

about what will happen to an intestinal obstruction patient from his appearance, patients will come on the table in apparently good condition and undergo a short operation and stand it well and were it an ordinary abdominal operation an unqualifiedly successful outcome could be expected, yet in obstruction many such patients go right on and die, and they die from absorbing toxins.

The first attempts to get rid of toxins were made unwittingly and before it was known that such things as toxins existed in obstructed bowels: they were made to relieve the distended bowel from gas and fluid contents so that the bowel could be returned into the abdomen and the abdomen be closed.

All sorts of methods are used to let the gas and fluid out of the distended bowel, but they mostly permit the intestines to become soiled from which a peritonitis is pretty sure to ensue. There is a method which when properly used is quite efficient and does not soil the intestines. A glass or metal tube five-eighths inch or larger in diameter and six or eight inches long has attached to one end of it a long rubber tube; the glass is introduced into the distended gut through a longitudinal incision on the side of the gut opposite the mesentery and barely large enough to admit the glass tube. The tube is then pushed through into the bowel as far as the rubber, and the gas and fluid contents in the immediate vicinity of the tube escape through it into a receptacle under the table. The tube is then held in one hand while a portion of the gut is slipped over it and another segment of bowel emptied; this is repeated again and again until six or eight feet of bowel are emptied, then the tube is withdrawn and the incision sutured transversely to the gut. But this emptying of the bowel will not be sufficient to save the patient. There must be a permanent drainage of the bowel. It has been the practice of most operators within the last few years who understood the subject well, to establish an artificial anus or fecal fistula, and the practice is good.

It makes little difference what method of making the fistula is employed so long as the fistula is made at once. Any method that requires some hours to elapse in order to secure adhesions of the bowel to the peritoneum before the bowel is opened, as is commonly done to make an artificial anus, is inadvisable. There is a method which is very quick and very effective, that is, to introduce a rubber tube into the bowel through a longitudinal incision (the incision used to empty the

gut described above may answer for this purpose) then fasten it in the bowel with a purse string or after Weitzel's method in gastrostomy; the free end of the tube is now passed through an opening made in the omentum barely large enough to admit it and then out of the abdomen, either through the original incision or through a stab wound. The abdomen is then closed. This method brings the most defensive structure in the abdomen namely, the omentum, to protect the incision in the bowel through which the tube passes and also insures adhesion to the parietal peritoneum. After a few days the drainage tube is removed and the hole in the omentum generally quickly closes and closes permanently. While the tube is in place the bowel can be irrigated through it or suction can be applied, or the two may be alternated.

When the patients can not stand the formidable operation necessary to relieve the obstruction—such as when a resection is necessary, the mortality is bound to be high, but it can be reduced 50 per cent. by draining the bowel and making the resection later. Nevertheless there are those who argue for the immediate resection. If the resection is made at once, that alone is not sufficient to save the patient but the bowel a few inches above the resection must be drained to attain the lowest mortality, otherwise the toxins pass through the site of the resection in to the normal bowel below and are absorbed rapidly and kill the patient.

Where a portion of bowel is left in the abdomen whose viability is doubtful or it is impractical to resect the obstructed portion, even if the toxins are removed as described the patient is likely to recover so far as toxins are concerned, still he has grave dangers ahead from disintegration, perforation or sloughing of the unremoved portion, therefore if it is possible, it is best to resect that portion, still this is one condition in which a short operation is of the first importance.

Where the bowel is gangrenous and resection is not advisable, it is good surgery to draw the whole gangrenous loop out on the abdomen, drain above it and leave it out to be resected at a later time. By doing this sloughing and perforation of the gangrenous loop which is sure to follow will be outside the abdomen where it will do no harm. This method can sometimes be used to handle an irreducible intussusception, but generally the intussusception can not be brought out of the wound and be induced to remain out.

Recapitulation

1. Early diagnosis and early operation is of first importance.

2. No arbitrary number of hours can be taken as a guide as to whether a case is early or late.

3. An early case requires nothing more than the release of the obstruction, but the operator must be sure that all obstructions are released.

4. Late cases require first, the removal of the contents of the obstructed bowel and the establishment of drainage of the same, and second, the release of the obstruction either at that time or at subsequent operation.

5. The quickest and safest method of removing the bowel contents is by means of a glass or metal tube introduced into the bowel with a long rubber attached to conduct the bowel contents into a basin far from the field of operation, and the glass portion long enough (6 or 8 inches) to permit a number of feet of bowel to be slipped over it.

6. The best method of establishing drainage of the obstructed bowel is by passing a rubber tube into the bowel then the distal end of it through a hole in the omentum, then out of abdomen through a stab wound or through the original incision.

7. It is best, if resection is necessary, to do it at once providing the patient's condition will permit it, but it must be remembered that the general appearance of obstruction patients is very deceptive.

8. When resection is made at once the proximal bowel must be drained also.

9. When a loop of dead or obstructed bowel is not resected it must be drained as well as the proximal bowel. It is sometimes best to leave such a loop outside the abdomen to be removed later so as to avoid the danger of the loop perforating or sloughing inside the abdomen.

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Discussion

Dr. Geo. E. Decker, Davenport—I am sure that I express the sentiment of the Society when I speak of the pleasure that we have had in listening to these three very able papers on an exceedingly important subject. The point of the symposium, as I take it, is to increase the value of our services to our patients. In other words, to lower the mortality in cases of intestinal obstruction. A year or two before Dr. Murphy's death, he stated that the mortality of acute intestinal obstruction was approximately 40 per cent., and he quoted figures from Deaver's statistics which agreed very closely with this conclu-

sion. Considering the technic employed in the clinics of both Deaver and Murphy, it would seem almost hopeless to expect much reduction of the mortality through perfecting the surgical technic; patients in those clinics had the benefit of the very best technic. And so the question comes down to what has been emphasized in the last two papers of this symposium—the speeding up of the diagnosis. The writers of the last two papers agree that if a surgical diagnosis can be made, these are cases where the surgical diagnosis is justifiable without the fine, hair-splitting findings as to detail. Far better it would seem to me to make an early exploratory operation on a case of suspected acute intestinal obstruction, than to quiet this patient with morphin or other sedatives while deciding whether it is an obstruction by band or volvulus or by gall-stones. Included in the cases which Dr. Murphy quoted were a considerable number of strangulated hernias. It seems to me to go without saying, that the external hernias—femoral, inguinal and umbilical—present so few problems in their recognition that they should contribute very little to the high mortality of intestinal obstruction. If we were to exclude those which, as stated, ought to be recognized with comparative ease, and exclude, as has been suggested in this symposium, the chronic obstructions, there remain the few different kinds of internal acute obstruction, all of which are operable at the very first moment that is possible. As Dr. Rohlf has suggested, the combination of pain and vomiting, without leucocytosis (most of these cases are primarily mechanical and so are not likely to give early leucocytosis), together with something about the patient's appearance that to the average physician would suggest a serious condition—all these things combined would indicate that surgical intervention is called for. Until that fact is recognized, and until surgical intervention is the routine procedure throughout the country, the mortality of acute intestinal obstruction is not going to be lowered very materially.

Dr. C. F. Wahrer, Fort Madison—I would like to introduce to you a new member of the Iowa State Medical Society, who comes well recommended from his old home in New Mexico; Dr. F. W. Noble of Fort Madison, a capable surgeon and a gentleman.

Dr. F. W. Noble, Fort Madison—Mr. Chairman and Members of the Iowa State Medical Society—I thank Dr. Wahrer very much for his kind remarks, and trust you will find them justified. The subject of intestinal obstruction is of much interest to me personally. I have seen quite a number of cases, and would emphasize what each of the doctors has said in regard to early diagnosis and early operation. When I was younger I had the idea that one should wait for all the symptoms enumerated in the textbooks, and especially that one should wait for the stercoraceous vomiting, which, of course, is the precursor of death. When you get stercoraceous vomiting there is no use calling in the surgeon—you had better call in the undertaker. Following operation

for intestinal obstruction, I have often noticed how frequently these patients become infected and how little resistance they have in any regard. Also I have noticed how frequently it is the case that patients with neglected chronic obstruction of the bowel die from lung complications. Very often septic pneumonia develops, and in one case pulmonary embolus occurred four days after operation for strangulated hernia. Following resection the patient seemed to be doing fine, the pulse running about 80, temperature about normal or 99, the case apparently in very good shape indeed and all at once pulmonary embolus developed and death occurred within an hour or so. In the one case there may be no temperature, the pulse rate may not be over 80, yet the end result may be disastrous, while in another case the temperature may be running 101.5 or 102, the pulse rate as high as 120, and still the patient finally recover. The early symptoms that I have noticed have been abdominal cramps, vomiting which resists all forms of treatment, and in children one of the noticeable features in many cases consists of small, frequent, bloody mucus stools. This symptom in the case of a small child has always in my experience been indicative of an obstruction. The stools do not contain much fecal matter, but principally mucus and some blood.

Dr. C. E. Ruth, Des Moines—I do not want to say much about these papers except by way of commendation. I was delightfully entertained with them because I could find little to criticize. I had hoped the essayist would give some consideration to acute dilatation of the stomach which is always in part, at least, an intestinal obstruction. One cannot have an acute dilatation of the stomach without obstruction somewhere on the distal side of the stomach, and also have an obstruction more or less complete on the proximal side. In other words, as soon as the stomach begins to distend with gas, the normal circular constriction fibres at the cardiac orifice guard against regurgitation until we get a sufficient amount of distention on one or the other side of the cardia so that the esophagus is obstructed by dragging against one or the other tendinous margins of the opening. This means a collapse and obstruction (at the cardia) of the esophagus therefore the gas cannot be readily regurgitated, and the distal obstruction is usually produced by dragging the mesenteric artery and its peritoneal fold taut across the duodenum. The stomach more or less rapidly distends according to the influences at work and paresis of the stomach quickly develops. What I have said does not indicate that there is any particular resistance to the passage of the stomach tube; the tube will take the curve and get into the stomach without difficulty, but in many of these cases nothing can be forced back through the esophagus, or rarely a slight occasional regurgitation takes place, but not sufficient for complete relief. As a rule there is no pain. These patients die quickly, however, if not relieved by intelligent treatment. When pronounced

distension exists due to gases in the upper portion of the abdomen, the diagnosis is instantly made certain by passing the stomach tube and the first step in cure is taken if instituted early enough. In severe cases, it is of course necessary to repeat this maneuver perhaps many times at short intervals. Obstruction of some one of the large trunks of the mesenteric artery, which is terminal, will shut off completely the nutrition to a large or small section, as the case may be. In one case of thrombus of the inferior mesenteric artery that I have seen, the colon was five inches in diameter, filled and greatly distended the entire abdomen. In such a case, obstruction is always complete and a fatal result certain without early and skillful surgery. I was gratified, indeed, to note the insistence on drainage of those cases that are desperate, and the doing of a quick as well as a timely operation.

Dr. Walter L. Bierring, Des Moines—I want to direct a few remarks to the etiology of the condition under discussion. Dr. Kenefick referred to toxic absorption and this was also touched upon by the other speakers, and yet none seemed to have an idea as to what this toxic absorption was. Dr. Kenefick again referred to the greater permanence of the systemic disturbance in obstructions of the small intestine as compared with those of the large intestine, therefore he concluded that bacterial invasion could not properly explain the symptoms incident to this stage. All of the speakers have referred to the fact that the symptoms of acute intestinal obstruction are of a particularly profound nature. They referred to the subnormal temperature, to the ileus, to a low leucocyte count. They gave us the symptoms of a severe toxic anaphylactic shock, and I wonder if right here one cannot get an explanation of the work of Dr. Novy. You will remember that he developed an unusually toxic substance by simply introducing into serum agar, fibrin, crude substances, then by shaking the serum and introducing it into a resistant animal like a rat, he was able to develop a substance more poisonous than anything yet demonstrated. Now then, there may be absorption into the circulation, taking place quickly, of something of a similar nature that causes an alteration in the metabolic arrangement of the sera of the body, producing all of a sudden this anaphylactic shock the extent and degree of which frequently determine the outcome of your case when the mechanical disturbance is the least. Novy has shown by these animal experiments that if an alkali was used promptly he might offset these severe toxic effects. Could not that principle be applied in these instances and saline solutions or alkaline substances introduced into the system in as large amount as possible before the time comes for operation, thus raising the standard of resistance and possibly bringing about a better result?

Dr. O. C. Morrison, Carroll—I was very glad indeed to hear Dr. Bierring's remarks. They are a few factors that appeal very strongly to the younger men in the work. One of these is that the severity

of the case depends not so much upon the point along the gastro-intestinal tract where obstruction occurs, as upon the type of obstruction. It is well known that we may artificially obstruct the gastro-intestinal tract anywhere, and if we drain above we usually come out with a good result. But if we drain the bowel when there is a thrombus plugging the blood supply to it we do not get that result. If the obstruction is mechanical and is a foot or two below the ampulla, and you drain, you do not get that result. Then the question arises, what is the solution of the problem? von Bergman has shown that an inflamed bowel will absorb faster than an uninfamed one. We know that over this great mass of tissue that is dying because of lessened blood supply, there is poured the trypsin of the pancreas, we have an infection present also perhaps, but the ultimate result of all infection is the death of tissue, which, due to catabolic processes, is broken down into its cleavage products. The action of all the toxins is the destruction of tissue, breaking it down into its constituent elements. And here we have working together all the four factors referred to by Dr. Kenefick, and the toxic products are thrown into the system. We can ligate an artery in the arm or the leg, and the patient lives and suffers very little discomfort. But allow nature to plug that vessel with a thrombus; those of you who do thrombotic surgery know that there is something different in that patient than the one you have operated of your own volition, and I would like to have you contrast the two pictures provided they are left as to the outcome. In the one picture we have the destruction of tissue in its cleavage form, the debris thrown into the system in an overwhelming quantity, and this patient, like the one with thrombal obstruction, very rapidly goes out. Some men have attempted to put into the work of surgery, surgical anastomosis, of which Dr. Bierring has just spoken. This is one of the most important considerations in the handling of these cases, and if patients suffering from obstruction can have the benefit of it many would be saved. A word as to treatment. Dr. McKinnon of Lincoln has spoken of an operation that is very helpful, and that is a jejunostomy under cocain anesthesia. The side is opened beneath the ribs, the jejunum pulled up, and a catheter of fairly large caliber simply introduced into the bowel and no fixation done at all. In several instances we have used this method with good results. It can be done anywhere and very quickly by men who are accustomed to doing this type of work.

Dr. C. M. Wray, Iowa Falls—I desire to express appreciation of the papers that have been presented in this symposium, because the authors are all friends of mine, and two of them come from my part of the state and are dealing with a practice similar to my own. These cases of acute intestinal obstruction are emergency cases with all of us, and I can think of no condition that requires more skill and judgment and quicker action than is required in

acute intestinal obstruction cases. Measures of relief here are life-saving procedures. As some of our old friends here have said, we have had cases in which we could give only a hopeless prognosis, but we can give a better prognosis if we act quickly. I regret that Dr. Rohlf did not bring out some of the reflex obstructive cases. Those of us who had the pleasure of sitting under the teaching of the late master, John B. Murphy, can never forget his admonitions in this respect, and he has embodied them in the annals of his clinics. In 1914, Dr. Murphy presented a classic on Ileus which will, I am sure, stand for all time. There he deals with those types of obstruction which are not mechanical, but depending upon some underlying factor, and he specifically admitted his mistakes in sometimes erroneously opening the abdomen for lead colic and conditions of that kind. So I wish Dr. Rohlf had mentioned the reflex obstructive cases and told us how to avoid those mistakes. With Dr. Rohlf I wish to emphasize the leucocyte count, because it is of vast importance. The man who is doing any amount of surgery has been importuned to do operation for gastric colic when the vomiting was reflex in the early stages, but not obstructive only insofar as reflex in character. And in my opinion no one has ever brought that out in such a nice way as has the late Dr. John B. Murphy.

Dr. Kenefick—I regret that Dr. J. T. McClintock is not here, for he is still conducting the experiments that he brought before this Society last year. He and Dr. Dragsted have laid out two more years of work in experimental research on this subject. Our Society numbers among its members a few pathologists and quite a number of surgeons, but we are diagnosticians of greater or less degree of skill, and without doubt this is the most important part of our work and especially in dealing with cases of intestinal obstruction. I know nothing at all about the pathology of this subject, and I presume that is why the chairman asked me to take part in this symposium. Dr. Wray has referred to the great master diagnostician, and in this connection we remember Dr. Murphy's statement that intestinal obstruction is practically a bedside problem. The laboratory gives us very little aid in the diagnosis of these cases. We must diagnose them as general practitioners, singly, barehanded and alone at the bedside, and if we do not make the correct diagnosis at that time we fail in our treatment.

Dr. Rohlf—I have nothing more to say except to thank the members for their liberal and kindly discussion.

Dr. Bowen—I thank the Society for its kindly reception of these papers. Regarding the remarks of Dr. Bierring relative to the advisability of preceding these operations with a saline solution, that is a very good idea. But it is a whole lot better to get after that patient with a knife at the earliest possible moment, rather than to stop to give saline solution. If the saline solution can be given while the patient is

being made ready for the operation, that is all right. This measure is a useful adjunct after operation, and this point was not touched upon in any of the papers of the symposium. In the treatment, especially of late cases, there is only one thing to do, and that is to persistently drain the bowel. But it would seem that there are a lot of people around this state who do not know that that is the proper thing to do. The only way you can get the patient to live is to drain the bowel.

HEREDITARY SYPHILIS*

C. L. BAREWALD, M.D., Davenport

This subject is a very important one, and to it are applicable the words of Horace's hexameter:

"Whatever you do, do it well; keeping an eye on the outcome;"

because hereditary syphilis is very insidious in its encroachments, and most disastrous in the dire results on human degeneration and misery. In its woeful destructiveness it goes onward, often unrecognized, and sometimes not sufficiently combatted, until it has obtained such a hold on its victim that it can only with difficulty be dislocated.

I

Hereditary syphilis is the same as the acquired, and the infection is transmitted in the same manner; that is, by the germ, *spirochaeta pallida*, but instead of being infected from another person, the germ is transmitted through the blood through the placenta by the mother; and there is no initial lesion.

Every syphilitic mother procreates syphilitic children, and can have no healthy children; excepting when children were born to her prior to the infection.

I believe that the mother, untreated, especially in the first six years, will inoculate the offspring; but may evade this danger when she herself undergoes the regular thorough course of treatment, with continued observation for the full three years.

Syphilitic mothers easily conceive; yet it is estimated that 75 per cent. suffer abortion—which is nature's remedy to counteract the baneful detriment of the disease, and to limit its wide scope. Of the syphilitic children born alive, about 75 per cent. are destined to succumb during the first year of existence. It is estimated that of all the children born, one in 150 is found to be syphilitic.

If the physician finds that his patient has previously sustained an abortion, it is well to make

*Read before the Scott County Medical Society, April 1, 1919.

a careful examination for syphilis in the child, and in the mother.

In all obstetrical wards I advise the physician to make the Wassermann test. And I believe this precaution to hold good also in private practice whenever it can reasonably be carried out.

When a cure has been effected, parents can procreate healthy children.

II—IN INFANCY

The preceding remarks referring mostly to the prenatal stage, when now the child has been safely brought into the world, we find that some, even amongst the syphilitics, have been born plump and in apparently good health.

Yet, almost as like a mark of Cain, there are many—some apparent, others latent—suspicious indications, which awaken the interest of the careful physician.

1. There is a general show, on first sight, of something not being just right.

2. The voice may be weak, tiny, high pitched.

3. Perhaps you will hear the syphilitic cry; a high-pitched, strident outcry, but weak and showing a sickly condition. Hiccough also may come under your notice, and is an unfavorable sign.

4. The breathing may be accompanied with a wheezing sound.

5. There may be snuffles, a catarrhal condition and exudate from the nose, of a seropurulent nature, mixed with some streaks of blood. The mother says, it has a bad cold.

6. A rash may show, or impetigo neonatorum; purpura hemorrhagica neonatorum, either under the skin, or as exudate, may come on; and that is always a grave symptom.

7. The child is liable to succumb to white pneumonia.

8. Children with bulla in the palm of the hands, or on the soles of the feet, have a very grave affection and never recover.

9. Osseous cell proliferation about the joints, with exostosis and synovitis, give pronounced indications.

10. Slow and painful dentition may be a result from the taint; although it may not.

11. Then there may be many deficiencies; amongst which can be counted asymmetry in form, scantiness of hair, and wanting in patches, having no eyebrows, irregular features, generally enlargement of spleen and of the liver; etc.

12. In the beginning these signs and symptoms may not appear, or be scarcely appreciable. But from the third to the sixth month they become more marked and often give indubitable evidence of the hereditary syphilitic taint.

III. THE CHILD IN MATURITY

The above considerations were held mostly with reference to the child in the prenatal stage, and from the first to the tenth year, of whom we are accustomed to hear the frequent misgivings of the mother; that some how or other, he does not appear to be doing well and lapses from one sickly affair into another.

With the growing years, commencing even as early as when six months old, the symptoms begin to appear which are to a great extent like those in acquired syphilis. The mother now becomes more solicitous, and finds that the child is not doing well at all, at all.

At this time there appear the fissures in the body, at the corners of the mouth, the eyes, anus, at various folds, the fontanelles are slow in closing; enlargements are found in the spleen and in the liver. The child appears to be prematurely aged.

I had a case where there was constant vomiting, with intestinal troubles. They were a fine, reputable family; all kinds of milk and hygiene were brought into requisition; but without avail. Finally, at my wits' end, and being expected to do something, I applied inunction of mercury: which gave prompt results, and led to a final good recovery.

It has repeatedly been observed, when a physician is baffled in unsuccessful treatment of a hard case, not in the least suspecting any hereditary taint, if he then has recourse to the Wassermann, salvarsan, and mercury, he will secure flattering reward for his attack on a latent hereditary taint.

We have already noted that as the years go along, the hereditary acts in the same way as the acquired syphilitic; and is also treated in the same manner and with the same remedies; with perhaps a little kindlier attention in children.

Reading Cicero once more, we are with him when he says: "As I approve a youth that has something of the old man in him, so I am no less pleased with an old man that has something of the youth." But the tainted youth with the premature little old man in him is not desirable on account of other disabilities.

Always bear in mind that for the sake of the patient, and for the welfare of human society, everything must be done diligently, to eradicate the disease, and to prevent inoculation of others.

The torture of suffering does not remain alone, but bears unwelcome companionship. In the course of time various stigmata appear which are like an open book to the expert; for instance: malformations of face, irregular features, inco-

ordination of the senses, Hutchinson's teeth, neurasthenia, mental imbecility, epilepsy, idiocy, hydrocephalus, spina bifida, physical decrepitude, moral degeneracy, various monomanias, and inclinations to vice.

The frontal bossæ and forehead are prominent, but the bridge of the nose becomes sunken, and tip of nose is turned up. In fact, look for all conditions as they are found in acquired syphilis, excepting initial lesion; and, as already stated, the treatment and remedies applied are the same as those used in acquired syphilis.

These people are more likely to suffer injuries, and slower to heal kindly, it is like always stubbing the sore toe.

But at the same time it must be clearly held in mind that the above named qualifications and defects may arise from other sources.

In general, however, as a healthy mind in a healthy body is a strong foundation on which to upbuild a model human society: so, on the other hand, nothing is more degrading than the loathsome venereal infections in dragging down noble human life to enfeebled existence and despised perseverance.

It is said that only about 25 per cent. of those coming under the class of hereditary syphilis continue in life.

And yet the very fact of their existence demonstrates that they are endowed with some times superior vitality. They often show a bright, meritorious and successful career, full of happiness and goodness.

These brief considerations clearly point out the dreadful havoc which is created in any community where the evil consequences of venereal diseases are not recognized, and where they are treated with indifference, instead of being attacked by the entire community, irrespective of creed, politics, or previous condition of servitude, with the most determined resolution to fight down the evil to the bitter end without respite or parley.

When once started the evil grows constantly, by day and by night, spreading in every direction, creating untold misery and injury evermore, and in such an insidious manner that the harm can not be calculated and the damage is unnoticed, until the ruin has involved entire families, communities; yea, even villages, armies, and states.

It recalls to mind the promise of the Most High that the good deeds shall be rewarded to the thousandth generation; but that the wicked shall be punished unto the third and the fourth generation: how truly that curse works out in hereditary syphilis!

In view of these studies, which are not fancies, but veritable facts, allow me to announce myself as thoroughly the advocate of eugenics to be applied to the candidates for marriage in accordance with the directions of the government under the physician's control.

And, furthermore, that I earnestly recommend the taking of the Wassermann blood test whenever reasonably possible; not only in the instance of patients under treatment, but also by those who are well; since again and again the test has discovered existence of the taint where there was no idea whatever of its prevalence.

IN CONCLUSION:

The yellow plague has been routed; the white plague is on the way towards a finish; what a glorious achievement will it be, when the third plague gives way to the victorious struggle of every community in every state.

Then will there be sunshine in the land; health and happiness in the home; with riches and singing and laughter in the prosperous community; and a prevalence of cheerful pursuits and useful studies giving occupation at all hands.

Look for syphilis, and you find it.

THE LABORATORY SERVICE OF DIVISIONAL LABORATORIES

CAPTAIN LUCIUS A. FRITZE

(Continued from December Number)

PLACE OF DIVISIONAL LABORATORIES IN PLANS FOR FUTURE ORGANIZATIONS

In plans for future organizations, divisional laboratories should be included as a unit of a combat division. The work of these laboratories throughout the war, especially those laboratories which functioned continuously, has been of such a character as to warrant them being included in the tables of organization with definite duties prescribed.

Experience has shown it much more advantageous to have these units stationed at division headquarters, the commanding officer of the laboratory a member of the staff of the division surgeon, and functioning under the direction of the division sanitary inspector.

Experience in this war has conclusively shown the necessity of having highly trained, selected, commissioned personnel to operate these laboratories. A medical officer, trained only in general medicine, is not qualified to handle the work arising in these laboratories. Field survey work, water supplies, epidemiology, and bacteriology

are subjects requiring special training and without this training medical men are not qualified to handle the work.

The necessity for divisional laboratories and the need of properly trained personnel has been clearly demonstrated during this war. To properly prepare a satisfactory commissioned personnel to operate these units in future emergencies, the organization of the medical department should include, as a separate and distinct corps, this corps of specialists; this corps to include non-medical scientific men qualified as water supply chemists and bacteriologists, general bacteriologists, nutrition experts, pathologists, board of health experts, *et cetera*.

It is recognized that in peace times the organization of the medical department is limited and under such conditions only a skeleton organization of such a corps will be permitted. However, with only a limited organization, it is possible to organize a selected reserve corps of specialists which will prove an invaluable adjunct to the medical department.

The progress of specialized laboratory service within the next twenty years compared to the progress made within the past twenty years will clearly demonstrate the value of this branch of the service to the medical department. It is observed that medical men are gradually being replaced by technically trained non-medical men in the various branches of sanitation and public health work. For the medical department to remain on the equal with civilian practice, it will be necessary to include such men in its organization.

DIVISIONAL FIELD LABORATORY

Equipment Table

Transportation—One truck, motor, light delivery; one standard three-fourths ton trailer; one motor cycle side car.	
Incubator—Standard bacteriological, gasoline heated, automatic regulator thermometer.	
Autoclave—Standard, gasoline heated burner condensor for making distilled water.	
Field desk—No. 2 with the following equipment—	Sheets
Paper, letter, typewriter.....	250
Paper, manifold.....	500
Forms—55U miscellaneous.....	400
55M urine.....	400
55N feces.....	200
55P blood.....	200
55O sputum.....	200
94 water chem.....	200
95 water bact.....	500
55Q Wassermann.....	200
Medical department—forms—those in use at time	
Paper, carbon, letter, box.....	1
Labels, Dennison, cartons.....	2
Pencils, lead.....	6
Ribbon, typewriter.....	2
Pen holders.....	3
Pen points.....	12
Eraser, rubber, ink 1, lead.....	1
Ink well, 1, ink tablets.....	25
Manila envelopes.....	25
White envelopes, official.....	100

Letter folders.....	20
Blotters.....	6
Ruler.....	1
Paste, tube.....	1
Twine.....	1
Tags, linen, small.....	100
Paper fasteners, box.....	1
Rubber bands, box.....	1
Typewriter, modified portable type.....	1
Descriptive catalogue of all equipment with pictures, order numbers, etc.	
Drawing instruments with red, blue and black inks for map work, set, 1.	
Poison testing outfit (for water, heavy metals, cyanides, acids and alkaloids).	
Tool box—Small, hammer, saw, screw driver, bit and brace, monkey wrench, pliers, nails, tacks, etc.	

TECHNICAL EQUIPMENT AND SUPPLIES

	Unit	Number
Bath, water copper, for test tubes.....	Number	1
Burner bunsen, alcohol.....	Number	2
Sterilizing tubes, copper, for pipettes.....	Number	3
Tripod, for bunsen Burner.....	Number	1
Wire, heavy, for swabs 8 inch lengths.....	Pieces	200
Cover glass 7-8 inch square.....	Ounces	1
Slides, glass, 1x3 inches.....	Gross	1
Slides, hanging drop, with concavity.....	Dozen	1
Dishes, petri, 4 inches.....	Gross	½
Elbow rods, glass, for stroke plating.....	Dozen	1
Loops, platinum, glass handles.....	Number	3
Paper, filter, large, for drying slides.....	Sheets	6
Pipettes, 1 c.c., graduated.....	Number	50
Pipettes, 10 c.c., graduated.....	Number	18
Test tubes, 3x3-8 inch.....	Gross	1
Test tubes, 6x3-4 inch, with lip.....	Gross	1
Test tubes, 6x5-8 inch, without lip.....	Gross	1
Test tubes, 6x5-8 inch, with lip.....	Gross	1
Wire baskets, 6x6x6 inches.....	Number	8
Tubing glass, 30 inch lengths.....	Number	15
Swabs, West.....	Number	100
Record book, 6x8 inches.....	Number	2
Bottles, dropping TK 30 c.c.....	Number	10
Burette, glass stock, cock, 25 c.c. grad. 1-10.....	Number	1
Cylinder, graduated, with foot 25 c.c.....	Number	1
Cylinder, graduated, with foot 100 c.c.....	Number	1
Cylinder, graduated, with foot 500 c.c.....	Number	1
File triangle, 3 inch.....	Number	1
Funnel, 2 inch glass.....	Number	2
Funnel, 5 inch glass ribbed.....	Number	1
Needle, spinal puncture.....	Number	2
Pipette, extra for leucocytes.....	Number	3
Tongue depressors.....	Box	1
Bottles, 150 c.c. automatic stopper, empty.....	Number	15
Bottles, sampling, wide mouth for water metal case.....	Number	36
Brushes test tube.....	Number	6
Clamp burette.....	Number	1
Collecting outfits for Wassermanns.....	Number	50
Dishes for clean cover slides.....	Number	1
Gauze, wire, asbestos center 5x5 inches.....	Number	2
Hemocytometer, complete.....	Number	1
Hemoglobin scale, Tallquist.....	Number	1
Microscope, complete, portable, in case.....	Number	1
Pencil, wax, blue, for writing on glass.....	Number	6
Pencil, wax, red, for writing on glass.....	Number	6
Ring stand, 4x36 inches with 2 rings.....	Number	2
Urinometer, with cylinder, in case.....	Number	1
Free chlorine tester (Wallace & Tiernan type)....	Number	1
Books, Medical War Manual No. 6.....	Number	1
Books, Standard Methods of Water Analysis.....	Number	1
Books, (American Public Health Association) Stitt-Blood Work and Parasitology.....	Number	1
Bottles, rubber stopper 25 c.c.....	Number	10
Bottles, 500 c.c.....	Number	3
Bottles, 300 c.c.....	Number	4
Bulbs, rubber for pipettes.....	Number	12
Centrifuge, hand.....	Number	1
Centrifuge, tubes, plain 15 c.c.....	Number	12
Forceps straight, medium fine.....	Number	2

	Unit	Number		Unit	Number
Forceps cover slip.....	Number	2	Ammonium oxalate	Grams	25
Lancet, blood automatic.....	Number	2	Sodium citrate	Grams	25
Oil immersion 1 oz. bottle.....	Number	1	Sodium carbonate	Grams	50
Paper, filter round, 5 inch 100 sheet pkg.....	Packages	5	Antiformin	Pounds	¼
Paper litmus, blue and red in each.....	Books	12	Automatic stoppered bottles, 100 c.c. for the fol-		
Petrolatum, 1 oz. jar.....	Jars	1	lowing, including stains:		
Rubber tubing, 3-16 inch.....	Feet	12	Carbo fuchsin	Number	1
Rubber tubing, 1-4 inch.....	Feet	12	Carbo gentian violet.....	Number	1
Rubber tubing, 1-2 inch.....	Feet	12	Fontana spirochete stain No. 1.....	Number	1
Rods, glass, 10 inch, 1 doz. in bundle.....	Bundle	1	Fontana spirochete stain No. 2.....	Number	1
Scissors, straight, 4 inch.....	Number	1	Fontana spirochete stain No. 3.....	Number	1
Syringes, all glass, Luer type, 2 c.c., 6 needles....	Number	2	Gentian violet	Number	1
Syringes, all glass, Luer type, 10 c.c., 6 needles....	Number	1	Grams iodine solution.....	Number	1
Tubing, soft glass, 4-5 m.m. bore, 10 inch lengths 1			Alcohol, ethyl	Number	1
doz. in bundle.....	Bundle	2	Methylene blue	Number	1
Cork screw	Number	1	Safranin	Number	1
Lantern, oil	Number	1	Wrights stain	Number	1
Bucket, galvanized iron, 3 gallon.....	Number	1	Eosin	Number	1
Boilers, double aluminum for media 4 quarts.....	Number	2	Media, Loefflers	Tubes	100
Spoon spatula 3 inch.....	Number	2	Plain agar	Tubes	100
Spoon spatula 8 inch.....	Number	1	Plain agar, 4 per cent for blood agar.....	Tubes	50
Beakers, nests—maximum 300 c.c.....	Nests	1	Bile in 100 c.c. bottles, automatic stopper..	Number	10
Towels hand	Number	12	Cotton absorbent, 1 lb. rolls.....	Number	2
Casserole, 200 c.c.....	Number	1	Cotton batting, 1st quality.....	Pounds	1
Counting plate for bacteria.....	Number	1	Gauze, rolls lb., 1.....	Number	1
Magnifying glass	Number	1			
Tubes Nessler	Number	4			
Flasks, Erlenmeyer, 100 c.c.....	Number	2			
Matches	Boxes	12			
Spoons, 12 inch.....	Number	2			
Balance, Harvard trip with weights.....	Number	1			
Soap, Ivory	Cakes	2			
Scale, for reading percentage of gas in fermenta-					
tion tubes	Number	1			
Petri dish holder.....	Number	4			
Thermometer, extra	Number	1			

TECHNICAL LABORATORY SUPPLIES

Agar-agar	Pounds	1	Bottles dropping TK.....	A 190	4
Peptone	Pounds	1½	Cork screw		1
Lectose sugar	Pounds	½	Files triangular	A 736	1
Dextrose sugar	Pounds	½	Gauze surgical in 5 yd. pkgs.....	Med. field supplies	2
Beef extract	Pounds	¼	Incubator with oil burner.....	A 1061	1
Egg albumin, dried.....	Pounds	½	Labels Dennisons No. 2007.....	A 1120	1
Sodium hydroxide sticks, C. P.....	Pounds	¼	Labels Dennisons No. 213.....	—	1
Acetic acid, glacial, in 250 c.c.....	Bottle	1	Lantern oil Eng. Equip. Manual 253.....	—	1
Hydrochloric acid, conc. 250 c.c.....	Bottle	1	Needles platinum 3 inch A 161 in glass rod handle		3
Nitric acid, conc. 250 c.c.....	Bottle	1	Paper, wrapping, Eng. Equip. Man. 302.....	Sheets	20
Sulphuric acid, conc. 250 c.c.....	Bottle	1	Pencils, wax, red.....	A 1395	2
Phenolphthalein, powder	Ounces	1	Pencils, wax, blue.....	A 1395	2
Sodium sulphite, ampoules 0.025.....	Ampoules	50	Pliers	A 1430	1
Phenol, C. P.....	Grams	100	Shears laboratory	A 1585	1
Iodine, crystals	Grams	50	Spoon spatula	A 1630	1
Potassium iodide, crystals.....	Grams	100	Standard Methods Water Analysis.....	A 146	1
Aniline oil	Grams	50	Thermometer incubator, extra.....	A 1795	1
Mercuric chloride, C. P. crystals.....	Grams	100	Twine, wrapping Eng. Equip. Man. 449A.....	—	2
Barium chloride, crystals.....	Grams	50	Wire, copper on spools.....	A 1921	1
Sodium chloride, tablets.....	Tablets	100	Autoclave complete with oil burner.....	A 41	1
Lead acetate	Grams	50	Burette clamp for 2 burettes.....	—	1
Iron sulphide	Grams	100	Cotton absorbent, 2 oz. pkgs.....	Med. field supplies	12
Orthotolidin, ampoules, .25 grams.....	Ampoules	50	Cotton batting, 1st quality.....	Med. field supplies	3
Chloroform	C.C.	200	Rings support 4 3-4 inch.....	A 1452	2
Ether	C.C.	100	Supports	A 1690	2
Ammonia, water	C.C.	100	Test tubes 150x20 m.m.....	—	500
Alcohol, ethyl, 95 per cent.....	Liters	1	Test tubes 75x10 m.m.....	A 1750	500
Methyl alcohol C. P.....	Liters	1-10	Towels hand		12
Basic Fuchsin, 10 per cent., in ampoules.....	Ampoules	10	Bottles sample 4 oz. wide mouth.....	—	100
Fuchsin, basic	Grams	30	Bottle containers for above of copper.....	—	50
Fuchsin, acidic	Grams	30	Cotton batting, 1st quality.....	Med. field supplies lbs	2
Methylene blue	Grams	60	Sterilizer, hot air with oil burner.....	A 1639	1
Gentian, violet	Grams	30	Tags, linen, small.....		500
Safranin	Grams	15	Beakers nests of 3-A14-A13-A15.....	A 105-A 106-A 107	2
Wright's stain powder, ampoules.....	Ampoules	15	Burettes 50 c.c.....	A 260	2
Eosin	Grams	10	Casserole	—	2
Silver nitrate	Grams	50	Counting plate	A 615	1
Formalin	Grams	50	Dishes Petri	Gross A 690	1
Tannic acid	Grams	25	Dish holder Petri.....	A 691	4
			Glass rods stirring, cut from A 90.....		6
			Magnifying glass	—	1
			Pipettes 10 c.c.....	A 1405	50
			Pipettes 1 c.c. single graduation.....	A 1421	100
			Pipettes grad. in 1-100ths.....	A 1405	12

(B) SUPPLEMENTARY TABLES

Transportable Laboratory for Testing Water Supplies in the Field

(Equipment arranged in small wooden chests)

Item numbers refer to list of apparatus and chemicals

	Unit	Number
Bottles dropping TK.....	A 190	4
Cork screw		1
Files triangular	A 736	1
Gauze surgical in 5 yd. pkgs.....	Med. field supplies	2
Incubator with oil burner.....	A 1061	1
Labels Dennisons No. 2007.....	A 1120	1
Labels Dennisons No. 213.....	—	1
Lantern oil Eng. Equip. Manual 253.....	—	1
Needles platinum 3 inch A 161 in glass rod handle		3
Paper, wrapping, Eng. Equip. Man. 302.....	Sheets	20
Pencils, wax, red.....	A 1395	2
Pencils, wax, blue.....	A 1395	2
Pliers	A 1430	1
Shears laboratory	A 1585	1
Spoon spatula	A 1630	1
Standard Methods Water Analysis.....	A 146	1
Thermometer incubator, extra.....	A 1795	1
Twine, wrapping Eng. Equip. Man. 449A.....	—	2
Wire, copper on spools.....	A 1921	1
Autoclave complete with oil burner.....	A 41	1
Burette clamp for 2 burettes.....	—	1
Cotton absorbent, 2 oz. pkgs.....	Med. field supplies	12
Cotton batting, 1st quality.....	Med. field supplies	3
Rings support 4 3-4 inch.....	A 1452	2
Supports	A 1690	2
Test tubes 150x20 m.m.....	—	500
Test tubes 75x10 m.m.....	A 1750	500
Towels hand		12
Bottles sample 4 oz. wide mouth.....	—	100
Bottle containers for above of copper.....	—	50
Cotton batting, 1st quality.....	Med. field supplies lbs	2
Sterilizer, hot air with oil burner.....	A 1639	1
Tags, linen, small.....		500
Beakers nests of 3-A14-A13-A15.....	A 105-A 106-A 107	2
Burettes 50 c.c.....	A 260	2
Casserole	—	2
Counting plate	A 615	1
Dishes Petri	Gross A 690	1
Dish holder Petri.....	A 691	4
Glass rods stirring, cut from A 90.....		6
Magnifying glass	—	1
Pipettes 10 c.c.....	A 1405	50
Pipettes 1 c.c. single graduation.....	A 1421	100
Pipettes grad. in 1-100ths.....	A 1405	12

	Unit	Number
Pipette boxes	A	1425 4
Support for Nessler tubes, collapsible.....	—	1
Test tubes culture 150x16 m.m.....	A	1746 400
Thermometers	A	1790 2
Tubing apparatus for media consisting of funnel A86, ring 121, clamp A45, and 2 ft. rubber tubing A131		1
Tubes Nessler 50 c.c.....	A	541 12
Albumin, 1 lb. carton.....		1
Cylinders 500 c.c. grad.....	A	653 2
Cylinders grad. 100 c.c.....	A	651 2
Eraser, pencil and ink combined.....	—	2
Flasks volumetric 100 c.c.....	A	817 2
Flasks Erlenmeyer 250 c.c.....	A	782 2
Standard forms "Sanitary Water Analysis".....		2000
Standard forms "Sanitary Survey Water Supply".....		2000
Ink tablets, 2x2, 32 in tin box.....		1
Matches, pkg. of doz. boxes.....		1
Medium dehydrated Difco, nutrient agar.....	lbs.	3
Medium dehydrated Difco, Endo. agar.....	lbs.	2
Medium dehydrated Difco, lactose broth.....	lbs.	3
Paper carbon	Sheets	6
Paper typewriter	Sheets	100
Paper typewriter, seconds.....	Sheets	200
Paper filter	Pkgs.	2
Pens, writing		12
Pencils, lead		6
Pen holders		2
Sodium sulphite ampoules 0.025 grams.....		100
Turbidimeter for color and turbidity.....	A	1836 1
Typewriter, Corona, standard.....		1
Wash bottle	A	1865 1
Water distilled in liter bottles.....		4
Free chlorine tester (W & T type).....		1
Acid hydrochloric C. P.....	1 lb. gsb	1
Acid sulphuric N-50.....	1 liter gsb	1
Alcohol 95 per cent.....	1 liter gsb	1
Balance Harvard trip.....	A	65 1
Balance weights for above.....	A	70 1
Baskets for culture tubes.....		24
Boilers double aluminum for media 4 qt.....		2
Bottles French square.....	A	195 24
Brushes test tube.....	A	245 12
Burner gasoline blast.....	A	330 1
Burner alcohol	A	285 1
Chloroform neutral	1 lb. csb	2
Erythrosine.....	10 gram vial	1
Fuchsin basic.....	1 oz. bottle	2
Funnels, glass 5 3-4 inches.....	A	862 2
Lactose Cp.....	in 1 lb. csb	2
Methyl orange 1-4 oz. csb.....		1
Orthotolidin.....	1 oz. csb	2
Peptone.....	1-2 lb. osb	2
Phenolphthalein.....	in 1-2 oz. csb	1
Platinum cobalt solution for color standard as speci- fied in Standard Methods of Water Analysis, Amer. Public Health Ass'n.....	200 c.c. to gsb	1
Silica suspension for turbidity as above....	200 c.c. to gsb	1
Sodium hydrate solution 1-20th normal.....	1 liter gsb	1
Soap, Ivory, cakes.....		2
Stove blue flame kerosene 2 burner.....		1
Copper sulphate C. P. in 1-4 lb. csb.....		1
Potassium bichromate 1-4 lb. in 1-4 lb. csb.....		1
Book, Standard Methods of Water Analysis American Public Health Ass'n.....		1
Poison Testing Outfit (for water, heavy metals, cyanides, acids, alkaloids)		1

MEDICAL SUPPLIES IN SERBIA

Quantities of medical supplies have been sent by steamer to Siberia and stored in the great warehouse which covers more than a half acre of ground in Vladivostok. The house is in charge of R. R. Moxley, formerly in France.

The steamer Hefforn, arrived last month in Vladivostok, with eight hundred cases of surgical dressings mostly made in Red Cross chapters of America and valued at \$65,000. The transport Sherman shortly after arrived with five hundred and eighty-six cases of drugs and chemicals valued at \$75,000, one hundred and eight cases of equipment valued at \$38,000 and thirty-three cases of surgical instruments valued at \$52,000.

The Red Cross warehouse now contains enough surgical instruments and medicines to equip fifty hospitals; enough dental supplies to set up ten chairs, enough medicine and glassware to keep clinics for 2,500 people a day for six months; four complete x-ray machines, enough serum for preventable diseases to give immunity to 100,000 people, and scales and medicines for one hundred dispensaries.

There are five hundred cases of medicines such as quinine, ipecac, aromatic ammonia; 10,000 thermometers, \$110,000 worth of narcotics, 3,000 pairs of crutches; 16 autoclaves for sterilizing; 5,000 pounds of ether—the last item being the balance of a shipment of 30,000 pounds to the Western hospitals. There are 175,000 glass bottles which will be enough to last for three months in Red Cross hospitals and those of the Russians and the Czechs. There are 3,000 pounds of collodion packed in hundred-pound drums; 25,000 hot water bags, 75,000 already having been shipped in thousands of cases containing sterilizers, stoves, surgical dressings, blankets, bath robes, and other things necessary to the sick.

In two months, Mr. Moxley has shipped forty-five carloads of surgical and medical supplies to Omsk and the other hospitals on the front operated not only by American Red Cross units but by the Russians and Czechs as well. He is prepared to load, on forty-eight hours' notice, twenty cars of supplies to be coupled to any sanitary train going into the interior.

OUR OWN DESTITUTE

During the war, the American people gave unsparingly and cheerfully of their time, labor and money for the people of stricken Europe.

Drive after drive was successfully carried through. Charitable institutions here at home suffered to a vast extent in consequence. How much they suffered is being made the subject of comment by many great writers and thinkers, who urge that American institutions be given an inning now. During the war, money went abroad, prices at home increased to unheard of heights, and calls from the needy increased by over 30 per cent. Our own institutions were harassed and handicapped and burdened with debt. The Christian Home Orphanage at Council Bluffs, Iowa, which has a daily average of 250 inmates to provide for, is undertaking a Thanksgiving drive to enable it to continue its great work for orphan and destitute children. If you feel that something should now be done for American institutions, send a Thanksgiving offering to this worthy orphanage.

The Journal of the Iowa State Medical Society

D. S. FAIRCHILD, Editor.....Clinton, Iowa

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MEDICAL CONDITIONS WHICH ARE LIABLE TO GROW OUT OF COMMERCIAL MAL- PRACTICE INSURANCE

According to an editorial in the "Boston Medical and Surgical Journal" the number of suits for malpractice on the docket have increased in ten years, from two thousand to nearly ten thousand. This is believed in a measure to be due to the free discussion of our shortcomings in medical societies which are freely published. The cynical attitude of some physicians in criticising the employment of certain measures of procedure has lead laymen to believe that the results which they had a right to expect have not been secured and that the doctor has been negligent in not employing approved methods of diagnosis and treatment. Not long since a supreme court ruled that a physician was negligent in not transporting a patient forty miles to the nearest x-ray laboratory for an examination. Any physician can easily understand the impossibility of complying with this rule in certain cases. The Boston Journal sees great danger to physicians in the sensational circulars that are sent out by certain commercial insurance companies to secure business. It will at once become apparent that if the public learns that the physician is insuring against his own wrongful or negligent act he is preparing to protect himself against careless treatment and that the public is justified in bringing suit to protect itself. The physician therefore who buys indemnity insurance is subjecting himself to great hazard.

THE TREATMENT OF MENORRHAGIA WITH RADIUM

Dr. Leda J. Stacy of the Mayo Clinic in a paper read before the Southern Minnesota Medical Association published in "Minnesota Medicine" for March, 1919, reaches the following conclusions in relation to the use of radium:

1. Cases of menorrhagia of menopause not associated with large fibroid tumors, and in which the possibility of carcinoma is definitely eliminated.
2. Cases of menorrhagia in patients between the ages of thirty-five and forty years, who have small submucous fibroid tumors, or who have demonstrable lesions.
3. Cases of myomas in which there is a definite contraindication to operation.
4. Cases of menorrhagia in the young person, who has resisted all medical treatment, in which very small dosage should be given.

RADIUM IN DERMATOLOGY

According to "The Urologic and Cutaneous Review;" Simpson states "that he has treated 200 cases of cancer of the skin with radium and failure to bring about recovery has been rare. Failure occurs as a rule only in the very extensive cases often previously treated by other methods. In some of these cases loss of tissue is so extensive that repair is almost impossible.

"In other cases there seems to be a lack of power of vital reaction on the part of the tissues, which finally refuse to respond at all. On the whole, however, radium is one of our most satisfactory agents in the treatment of skin cancers, and certain cases will yield which have apparently resisted all the usual measures."

ISCHEMIC MYOSITIS

The extreme importance of the condition known as Volkman's paralysis leads us to call attention to a lecture by Sir James Purves Stewart, K.C.M.G.C.B. and published in the "British Medical Journal."

The influence of tight bandaging particularly of the forearm in fracture cases and serious consequences resulting therefrom are too well known to need comment. Tight bandaging is not the only cause of ischemic myositis, although it is the most common cause. Any influence that seriously interrupts the circulation even of short duration may be sufficient. It is not necessary that the circulation be entirely cut off but sufficient to

seriously interfere with muscle nutrition and bring about a coagulation necrosis. If the interrupted circulation is promptly restored by removal of obstruction the muscle change does not occur. The ligation of the main artery, or spontaneous obstruction from embolism, or from thrombosis is sometimes the cause.

SERB SOLDIERS USE AMERICAN LIMBS

The impossibility of obtaining artificial limbs to replace those lost in war is the greatest obstacle which the Serb soldier has to overcome in his transition from a warrior to a citizen capable of making his own livelihood in a world at peace.

Frozen feet, and gangrened wounds resulting from lack of medical attention and exposure, caused the number of amputations in the Serbian Army to be especially great. And the American Red Cross has come to the aid of the government and the mutilated men, by establishing in Belgrade a factory for the production of artificial limbs.

A unit of American limb-makers was sent to Belgrade by the Red Cross and began work some time ago. A portion of the two hundred thousand dollar appropriation for relief work in Serbia was reserved for this purpose.

Col. Edgar E. Hums of Frankford, Kentucky, the American Red Cross Commissioner to Serbia writes:

"I have visited their plant (referring to the Red Cross limb manufactory) and have seen numerous persons, including a white haired Serbian woman, being fitted. Many mutilated ex-soldiers, who had despaired of ever again being self-supporting have been fitted with artificial legs, feet, arms or hands, and have resumed their old trades. The Serbian soldiers learn to use the American artificial legs with the greatest skill in an amazingly short time."

TYPHUS RAGING IN EUROPE

An epidemic of typhus is raging in Europe and the Red Cross is taking an active part in the effort to stamp out the disease.

Henry P. Davidson reports that 275,000 cases have been found in the belt extending from the Baltic to the Black Sea and there is appalling distress in Poland, Lithuania and the Balkans.

The Red Cross has sent 200 representatives to Poland in response to a pathetic appeal from Paderewski, Edicts calculated to stop the spread of the disease have been published in that country, one of them being an order that every person shave and bathe. About 100,000 cases have been reported and the death rate is high.

At the conference held in Cannes, recommendations were made to enlist Red Cross societies to establish a permanent committee of medical experts of the allied countries to deal with the typhus problem.

DATA OF THE VENEREAL DISEASE PROBLEM

First—Physicians are reporting cases in a much more satisfactory manner, although there are localities still in which no physicians are reporting venereal cases. All physicians have been sent a sample report, with law and circular of instructions. The present report card does not interfere in any way with the confidential relationship between doctor and patient.

Second—We are dealing entirely with the physician and local health authorities in all matters pertaining to the work.

Third—The purpose of locating the source of the infection is to prevent further infection. Quarantine or internment is used only when necessary to control infection in individuals who wilfully infect others.

Fourth—Every county should have a clinic, or arrangements made with a doctor, or doctors, for the treatment of indigent and semi-indigent cases, who will not undergo proper treatment, except when so provided.

Fifth—During the months of July, August, September and October there were 1533 venereal cases treated in the various clinics in the state.

Sixth—The state board of health in cooperation with the U. S. Public Health Service, furnish the salvarsan and mercuric preparations for the treatment of all indigent cases.

Seventh—The laboratories, maintained by the state board of health and the U. S. Public Health Service, will make Wassermann tests and microscopical examinations for any physician in the state, and containers may be secured upon request, or from the local druggists who handle board of health antitoxin. No charge should be made for the laboratory work, but the physicians may, when the patient can afford, charge for taking the specimen. The laboratory is available as outlined, not only for the initial diagnosis, but should be utilized throughout the entire course of treatment.

Eighth—As yet, no physicians have been prosecuted for failure to comply with the law, although the department has evidence in a considerable number of cases which can be used when desired. We prefer to get the willing cooperation of all the doctors, as we feel better results will be obtained; however, if necessary, action will be taken against the offender in the near future.

WILBUR S. CONKLING,
Director, V. D., Control.

TYPHUS CLAIMS ANOTHER AMERICAN LIFE

Captain Francis Connor of the American Red Cross, news of whose death has recently come from Siberia, was for several weeks before he was stricken down with typhus in entire charge of the inter-allied

anti-typhus train, which has prevented more disease and saved more lives than any other unit at work in that country.

This train, known to the natives as the Great White Train, was built by the American Red Cross for the Allies, and was originally intended to be used in the maritime provinces of Siberia. But epidemics broke out last winter in western Siberia—epidemics that ran the number of hospital cases up into the tens of thousands, and the unreported cases into the twenties of thousands. From military camps, prison barracks, hospitals, orphanages, refugee colonies, railroad trains—came reports of the spread of the spotted fever. So the Great White Train went west; cars for cutting hair and sterilizing clothes; are laden with medicaments and clothing; cars for bathing men, women and children, unwashed for months. Its trail of mercy reached from Vladivostok on the east to Cheliabinsk on the west—4,125 miles. In six months 20,000 persons have been bathed, clipped, disinfected, and in many cases have received treatment. The largest number handled in one day was 999.

The train had an epidemic of its own. Typhus broke out among the attendants, until fourteen out of the personnel of thirty-one were down. But these cases were sent to the hospitals, others were engaged to take their places, and the train went on.

Captain Dallyn, Captain Bulkeley and Captain Connor succeeded one another in taking charge. During Captain Connor's supervision, the train made even a better record than it had previously. And then Captain Connor, too, was stricken, early in August, and was sent to the hospital at Novo-Nikolaevsk. Only meagre details regarding his death have been received, but it is supposed that it took place after an operation, on August 25 for empyema.

So another life has been sacrificed in the Red Cross service in Siberia. All honor to these devoted men and women who have chosen, in the service of mankind, to leave comfortable homes and live amid privation, filth and squalor—to face death daily—and not death surrounded with the glamor of war, but a horrible death, a death without dignity, yet they have not died in vain. The epidemic has been broken. Thousands of lives have been saved, and it will be long before the memory of the help and comfort that the Red Cross brought to Siberia will be forgotten by the people who were saved from misery and death.

SOCIETY PROCEEDINGS

Fort Dodge Medical Society

The regular weekly meeting of the Fort Dodge Medical Society was held November 4 in the Commercial club rooms at Fort Dodge. Dr. C. H. Mulroney opened the discussion. Dr. A. A. Schultz spoke on the "Treatment of Influenza." Preceding the meeting of the medical society, there was a meet-

ing of the staff of Mercy Hospital at the hospital composed of several Fort Dodge doctors. The following officers were elected: Dr. C. J. Saunders, president; Dr. Robert Eveans, vice-president, and Dr. A. A. Schultz, secretary and treasurer. The members of the executive committee are Dr. W. W. Bowen, chairman; Dr. W. F. Carver, and Dr. A. H. McCreight.

Linn County Medical Society

The first official meeting of the Linn County Medical Society after the summer season, approximately sixty members being present, was held at the Montrose Hotel, October 22, Dr. John Stansbury, presiding.

Two papers were presented: "Typhoid Vaccination During an Epidemic," by Dr. Frederick Murray of Cedar Rapids, late major, medical reserve corps, and stationed at Honolulu, and "War Surgery Applied to Industrial Practice," by Dr. Howard Beye, assistant professor of surgery at the State University, Iowa City, late with the American Expeditionary Forces in France. These topics were followed by discussions and a light lunch.

Northwest Iowa Medical Society

Dr. L. L. Corcoran of Rock Rapids, was elected president, and Dr. Jay M. Crowley of Rock Rapids, secretary, at a meeting at Sheldon. The principal topic of discussion was "Influenza." A banquet at the Arlington Hotel was a feature of the meeting. Drs. Crowley and Boetel of Rock Rapids; Dr. Dahl of Inwood, and Dr. Chalmers of George, represented Lyon county.

Cass County Medical Society

The Cass County Medical Society held a dinner and program at the Masonic Temple, October 22. A number of physicians from different parts of the county were in attendance. Dr. James Maynard of Adair was present and read a paper. Others on the program included Drs. Weaver of Cumberland, Adair of Anita and Hull of Griswold.

Wives of the physicians were at the dinner. They attended the Ingram concert at the city hall auditorium afterwards.

Dr. Ben Whitaker was named as president of the Boone Country Club at a meeting held October 30. Everett Stevens was elected secretary-treasurer for the coming year. There will be an effort made at some time in the near future to increase the membership.

Scott County Medical Society

Dr. J. D. Blything of Bettendorf, was elected president at the annual meeting held at the public library, Tuesday evening, November 5. There were sixteen members of the society present, other officers elected were: Dr. E. O. Ficke, vice-president; Dr. S. G. Hands, treasurer; Dr. R. E. Jameson, secretary; Dr.

James Dunn and Dr. Frank Neufeld, censors; Dr. A. P. Bendixen and Dr. J. S. Weber, delegates.

Plans are under way for the year's festivities of the association and definite announcement of the line of endeavor will be made at the meeting, which is to be held on the evening of December 2.

Webster County Medical Society

Dr. F. H. Lamb of Davenport was the principal speaker at the meeting of the Webster County Medical Society held October 29. Dr. Lamb gave a talk on the Wassermann test.

Austin Flint-Cedar Valley Medical Society

The Austin Flint-Cedar Valley Medical Society met in Hampton, November 11. About sixty-five members were present. The following program was presented:

"Diseases of the Gall-Bladder and Bile Duct"—Capt. J. E. Brinkman, Waterloo.

"After the Operation, What?"—Capt. C. H. Braening, Waverly.

"Blood-Pressure"—Lieut.-Col. E. L. Rohlf, Waterloo.

"Some Suggestions about Acne"—Dr. J. F. Auner, Des Moines.

"Something About Pyelitis"—Dr. Jennings Crawford, Cedar Rapids.

"Influenza and Complications"—Dr. E. D. Allen, Hampton.

"Radium"—Capt. H. E. Meyers, Hampton.

"The Only Successful Operation for Prolapse of Uterus"—Dr. Emil Reis, Chicago.

The splendid paper by Dr. Reis was given with a movie demonstration of the operation. This was a new and novel, pleasing and instructive method of presenting a paper.

A unanimous vote of thanks was extended to Dr. Reis for his efforts in behalf of the meeting.

The "Clark" banquet was perhaps the most enjoyable event in the history of the society. The North American Hotel left nothing undone to make the affair elaborate, pleasing and complete. The reporter takes the liberty to state that the speech by Dr. M. J. Kenefick on presenting the loving cup to Dr. Clark was a gem. The splendid sentiments were heartily approved by the company present.

Dr. H. H. Clark's response was such as you would expect from any man "taken off his feet by this sudden wave of brotherly love and expression of respect."

The next meeting of this society will be a three days' session at Clear Lake the second week of July, 1920.

Marshall County Medical Society

A joint meeting of the Marshall County Medical Society and the Marshall County Dental Society was held Tuesday evening, November 4, at the Marshall-town club. Doctors and dentists of the county, to

the number of fifty-two were present. Dinner was served followed by a program consisting of two papers, one by Dr. A. D. Wood of State Center, on "Focal Infections" and the other by Dr. C. W. Bruner, of Waterloo, on "Focal Infections from a Dentist's Standpoint." Following the program a lively discussion of problems of doctors and dentists was engaged in and the rest of the meeting was spent socially.

Iowa Nurses' Association

Miss Mary Haarer, superintendent of nurses, University Hospital, Iowa City, was reelected state president of the Iowa Nurses' Association, at the conclusion of a three days' convention at Hotel Ft. Des Moines, Des Moines.

Other officers chosen were Miss Helen Peterson, Sioux City, first vice-president; Miss Helen Hartley, Des Moines, second vice-president; Miss Gyda Bates, Cedar Rapids, secretary, and Miss Wilhelmina Glesemann, Dubuque, treasurer.

Woodbury County Medical Society

At a regular meeting of the Woodbury County Medical Society held at the West Hotel, Sioux City, December 2, the following officers for the ensuing year were elected: President, Chas. P. McHugh; vice-president, F. A. Roost; secretary-treasurer, L. D. Cheney; censor, L. J. Townsend; delegates, Wm. Jepson, and P. B. McLaughlin; alternates, P. E. Sawyer and I. E. Nervig.

Very interesting papers were read by Dr. Wm. Jepson on "Infection of the Intestinal Tract," and by I. E. Nervig on "Hemorrhoids." Both papers were freely discussed. A number of new members were received.

The Poweshiek County Medical Society

At a special meeting of the society on November 12, 1919, it was voted to request the establishment of a branch of the state board of health laboratory at Grinnell. This request was granted and the laboratory is now in operation at the Community Hospital. The physicians of this region desiring to avail themselves of this service can do so by addressing the Community Hospital. This will be a great convenience to those desiring releases for diphtheria or other laboratory service.

At another special meeting on November 20, the subject of "Venereal Disease Control" was presented by the federal director, Col. W. S. Conkling. It is the plan to establish a regular station here for the treatment of these diseases. This will be done shortly after the plan has been more completely worked out.

The annual meeting of this society will occur on Tuesday, December 2, at Grinnell.

Dinner will be served at six-thirty o'clock and the annual business meeting of the society will follow immediately.

The secretary desires to have the names of those who expect to be present at the dinner not later than December 1. Please give this your attention. Be sure to come. Business of importance comes before the society at this meeting. E. E. H., Sec'y.

COMING MEETINGS

The twenty-fourth semi-annual session of the Sioux Valley Medical Association will be held at Sioux City, Wednesday and Thursday, January 21 and 22. Headquarters and sessions at Hotel Martin.

Program

Wednesday, January 21, morning session, 9:00 o'clock:

J. E. Reeder, M.D., Sioux City—"Epidemic Mastoiditis."

R. M. Waters, M.D., Sioux City—"Accidents During Anesthesia."

C. R. Mullong, M.D., Norfolk, Nebraska—"Blood Transfusion and the Results that May be Expected."

Albert F. Tyler, M.D., Omaha, Nebraska—"The Injection of Gas Into the Peritoneal Cavity for Diagnostic and Therapeutic Purposes."

F. S. Clark, M.D., Omaha, Nebraska—"Results of Some Experimental Work with the Use of Sodium Cacodylate on Athreptic Infants."

Wednesday, January 21, afternoon session, 1:30 o'clock.

Edward M. Williams, M.D., Sioux City—"Consideration of Endocrine Influences."

D. T. Quigley, M.D., Omaha, Nebraska—"Etiology of Cancer."

G. G. Cottam, M.D., Sioux Falls, South Dakota—"The Problem of the Infirm Prostatic."

J. E. Summers, M.D., Omaha, Nebraska—"The Acute Abdomen, with Special Reference to Intestinal Obstruction."

Samuel C. Plummer, M.D., Chicago—"Surgical Shock."

J. P. Lord, M.D., Omaha, Nebraska—"The Preservation of Function in Joints after Fractures."

F. J. McAllister, M.D., Hawarden—"Wound Repair."

Wednesday, January 21, 7:00 P. M., banquet at Hotel Martin, followed by addresses:

Colonel P. M. Culler, M.C., U. S. A., Hot Springs, Arkansas—"Medical Memories of the War."

Donald Macrae, Jr., M.D., (late Colonel, M.C., U. S. A.), Council Bluffs—"Who Won the War."

Followed by toasts and addresses by other prominent members of the profession.

Thursday, January 22, morning session, 9:00 o'clock:

R. F. Bellaire, M.D., Sioux City—"Value of the Fluoroscope in Gastrointestinal Diagnosis." Illustrated by lantern slides.

F. J. Plondke, M.D., Saint Paul, Minnesota—"Vaginal Drainage." Illustrated by lantern slides.

W. H. Mick, M.D., Omaha, Nebraska—"Similarity of Emergency and Military Roentgenology."

W. E. Wolcott, M.D., Omaha, Nebraska—"X-ray Interpretation of Bone and Joint Pathology." Illustrated by lantern slides.

E. G. McKeon, M.D., Pipestone, Minnesota—"Unusual Case."

Thursday, January 22, afternoon session, 1:30 o'clock:

G. C. Moorehead, M.D., Ida Grove—"Head Colds."

J. P. Dougherty, M.D., Sioux City—"The Polya Operation with Report of Case."

J. G. Parsons, M.D., Sioux Falls, South Dakota—"Myasthenia Gravis."

J. C. Hay, M.D., Laurel, Nebraska—"Diagnosis and Obstetrical Management of Breech Delivery."

J. A. Dales, Sec'y, Sioux City.

American Congress on Internal Medicine

This organization, in conjunction with the American College of Physicians, meets at Chicago, February 23 to 28, 1920.

The sessions will comprise daily clinical and laboratory demonstrations in many of Chicago's leading hospitals and teaching institutions. There will be several evening gatherings. These will be addressed by men eminent in American medicine. One of the evening meetings will embrace the fourth annual convocation of the American College of Physicians.

Ethical physicians of the United States and Canada who are interested in the advancement of what is best in clinical and scientific medicine and its affiliated sciences are cordially invited to attend all sessions of the American Congress on Internal Medicine. The gatherings will be of great practical and scientific worth.

Hotel accommodations must be spoken for at once. Detailed information with regards headquarters, hotels, clinics, scientific demonstrations, etc., may be secured by addressing Dr. Frank Smithies, secretary-general, 1002 north Dearborn street, Chicago, Illinois.

MEDICAL NEWS NOTES

Dr. Mayo says we're going to live on an average of fifteen years longer pretty soon. Why the delay? If it doesn't come along a little before pretty soon some of us are not going to be here.—Waterloo Times.

The Journal of the American Medical Association says that "at regular intervals medical science is butchered to make newspaper holidays," blaming the newspapers for naming the poison used in the recent Luikart cases in Detroit and others apparently following in their wake. No matter what happens you can always find some way to blame the newspapers. The Journal of the American Medical Association should have all the thermometers abolished before some who are out of coal freeze to death.—Knoxville Express.

A drive has been started to raise funds for the

King's Daughters Hospital in Perry. Three thousand dollars is needed to put the hospital out of debt and give it a proper working capital. After this is accomplished, endowment pledges that have been made will, it is believed, care for the general expenses above the regular income.

At a meeting of local physicians of Monticello held at the John McDonald Hospital, a plan was considered whereby one afternoon of each week would be given by each physician, in his turn, at the hospital, where the needy of Monticello and vicinity could bring their cases for examination and advice. This part of the work would be absolutely free. If medicine were needed, a prescription would then be given for such as were not in the hospital dispensary, patient to pay the cost of medicine either at the hospital or the drug store. Necessary operations would be handled in the same way.

Newton has \$175,000 pledged for a new hospital.

Odebolt is proposing to erect a \$50,000 hospital.

At a recent meeting of the medical faculty of the State University of Iowa, it was decided to hold the annual clinic for medical professionals of Iowa on Wednesday and Thursday, February 4 and 5. The reason for holding the clinic in February this year, is because the A. M. A. meeting is in April, and the Iowa State meeting in May; this made it necessary to change from April to an earlier date.

Championing the cause of the farmer, Dr. Thomas H. Duhigg before an audience of business men of the city at the Des Moines Club recently made a plea for higher prices for the farmer. "Increased production is the only cure for the high cost of living," he declared. "Prices being paid to farmers today for hogs and corn, Iowa's two great staples and foundation industries are calamitous," he said. "The farmer works the longest hours each day for a wage that is the lowest of all classes of labor. He works twelve hours a day, six days a week to feed cheaply the classes who are demanding a six hour day and five days of labor each week. He is the only man who is both laborer and business man. That is the reason that he never strikes, or preaches the gospel of destruction. He has his home and his property interests to sober and steady him." In a carefully tabulated report of the hog and corn production of Iowa, Dr. Duhigg brought out the facts that the present prices being paid for hogs and corn will result in ruin to the farmer. The ten million hogs of Iowa are worth a reasonable price of \$20 per hundred, he asserted. This would make Iowa's hogs worth \$400,000,000. "Today they are selling at \$7.50 a hundred lower than the cost of production," Dr. Duhigg said. "If that is continued at the present price level for one year, it means a loss of \$150,000,000, an average of \$1,500,000 for each county in Iowa. Corn of Iowa is

worth \$1.50 a bushel. A fall of 25 cents a bushel means a loss of \$100,000,000 on Iowa's \$600,000,000 corn crop. Yet the price has dropped 70 cents a bushel.

PERSONAL MENTION

Dr. J. L. Ravitts has located in Montezuma for professional work.

Dr. and Mrs. A. F. Cladwell are now located in Chicago. The Doctor is taking a special course at the Polyclinic in eye, nose and throat.

Dr. L. M. Small of Waterloo, has located in Rowley in the old hotel building. It has been many years since Rowley had a physician.

Dr. Emil Goetsch, associate professor of surgery in the Johns Hopkins University and Hospital at Baltimore has been named to take charge of the surgery work and hospital of the Long Island College. Dr. Goetsch is well known in this city and particularly among the members of the Scott County Medical Association.

Dr. O'Connell spent a ten days' vacation in attendance, at St. Louis, of the convention of U. S. military surgeons. He declares the meeting a notable one, there being a large attendance and great interest. At the convention Dr. O'Connell was chosen as delegate-at-large to the American Legion Convention to be held in Minneapolis the coming month.

Dr. Gershom Hill, accompanied by his wife and daughter, Dr. Julia F. Hill, arrived home from New Orleans. Dr. Hill appeared on the program of the American Public Health Association, reading a paper "Mental Hygiene." Dr. Julia Hill has just been discharged as a nurse at General Hospital Number 6 at Atlanta. She has been working in the pathological laboratory there for a year. She has come to Des Moines to stay.

Dr. Howard J. Wright, who was a captain in the medical corps in France, has received his discharge from the army and has opened an office at 507 Iowa building, Des Moines.

Miss Margerette McDonald, from St. Joseph, Mo., is the new superintendent at the Hand Memorial, Shenandoah, Iowa, succeeding Mrs. Flora B. Riggs.

Dr. Langland, a graduate of the Iowa State University, medical department, has moved from Cambridge to Madrid, purchasing the practice of Dr. Booth, who will move to Des Moines with offices in the Hippee building.

Dr. L. L. Bowie, who returned from service in France with the rank of major, will locate in Woodbine.

Dr. T. C. Cooper, formerly of Luther, has located in Madrid. Dr. Cooper served with the British troops previous to America participating in the war and later with the American forces.

Dr. E. W. Bookhart, formerly of Breda, has located in Ida Grove.

Dr. M. H. Lynch is attending clinics in Chicago.

Dr. J. C. Murphy, formerly of Emmetsburg, has located in Waterloo.

Dr. F. W. Powers of Waterloo, president of the Black Hawk National Bank, has retired and it is stated that he will resume practice.

Dr. S. G. Hands, county physician, Scott county, has resigned, resignation to take effect December 1. The doctor announces he will limit his practice to eye, ear, nose and throat.

Dr. Ida Kahn of Nang Chang, China, is visiting Des Moines and will deliver several addresses. Dr. Kahn is a native of China.

Dr. H. A. Meyers has become associated with Dr. C. E. Glym and Dr. B. L. Cody in the practice of medicine and surgery at Davenport.

Doctor and Mrs. Henry Alberts of Iowa City have returned from New Orleans where they attended the American Public Health Association.

Drs. O. C. Morrison, F. V. Hibbs, H. R. Pascoe and C. C. Bowie have incorporated under the name of the Carroll Clinic for the practice of medicine at that place. Each doctor will specialize in some branch of medicine. They have erected a \$50,000 office building for their exclusive use and the Sisters have provided a fine modern hospital of 100 beds. Carroll is very enthusiastic over the progressiveness of its doctors.

IOWA CORPORATION MANUFACTURES SURGICAL DRESSING

An Iowa corporation known as Marshalltown Laboratories of Marshalltown, Iowa, has recently taken over the manufacturing of the surgical dressing known as Cellosilk. A considerable increase in the production has been necessary to meet the demands for this dressing from all over this country and Canada. It is being placed in the hands of the medical profession through the regular dealers of medical and surgical supplies. See announcement in the advertising section.

The Abbott laboratories of Chicago, have been using half page space in this Journal. Their success warrants them in using a full page at this time. This evidence that the readers of this Journal are careful to patronize our advertisers is gratifying, and is a tribute to the policy which this Journal long since adopted, of publishing in its advertising pages only such medical products as have been accepted by the Council on Pharmacy and Chemistry.

The readers have come to know that this Journal protects them; and as a consequence they may unhesitatingly purchase the products which are advertised in this publication.

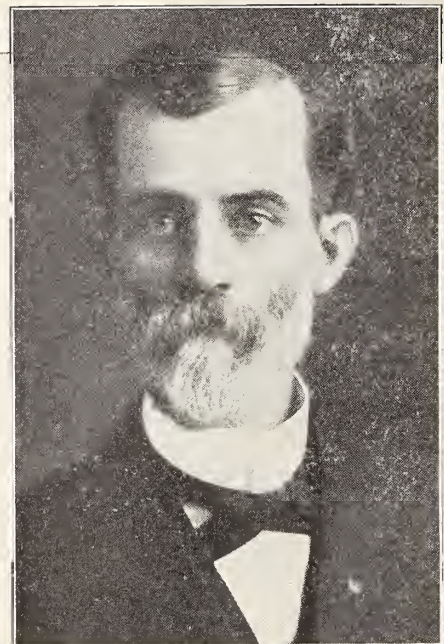
In answering the Abbott advertisement, each reader should use the coupon attached to the page advertisement, so this Journal will receive credit for the inquiry.

OBITUARY

Dr. M. Young, a resident of North Liberty, died at his home October 24. He was seventy-four years of age.

Dr. M. Morrison died at his home in Osage, October 19, age fifty-nine years. Dr. Morrison is the "Mitchel" often mentioned in Hamlin Garland's stories of the middle border.

Dr. Edward L. Baker, aged sixty-seven, for more than forty-five years a practicing physician at Indianola, died at his home in Indianola Sunday morning, November 2, at 8:30 o'clock, having been taken suddenly ill the day previous. Dr. Baker is survived by his wife and daughter. Another daughter, the



DR. EDWARD L. BAKER

wife of Judge Charles S. Bradshaw, of Des Moines, died about a year ago. The deceased was the son of the late General Nathaniel Bradley Baker, who was adjutant general of Iowa during the Civil War period, and whose name is familiar to all old soldiers and other patriotic men of the state. An elder sister of the deceased was the wife of Hon. John S. Runnells of Chicago. Mr. Runnells for many years was a practicing attorney in Des Moines.

Dr. Baker was a good man and a good citizen, faithful to every trust. He was interested in the community where he lived, was interested in the state and nation and being active in politics was frequently a delegate to republican state conventions. General Baker, his wife, and two daughters are buried in Woodland cemetery, Des Moines.

Advertising introduces and guarantees the merits of goods. Advertised goods must be good goods.

MARRIAGES

Dr. Lee Nugent and Miss Florence Quarton.

Dr. J. H. Davis, of Sioux City, captain in the corps overseas, was married to Miss Elizabeth Luick, October 24, a Red Cross nurse, at the home of the bride's parents, Mr. and Mrs. J. Luick, 1630 Des Moines street. They will make their home in Sioux City. They first met in France.

BOOK REVIEWS

THE SOLDIER'S HEART AND THE EFFORT SYNDROME

By Thomas Lewis, M.D., F.R.C.P.F., R.S.D.S.C. Physician of the Staff of the Medical Research Committee; Consulting Physician in Disease of the Heart, Eastern Command; Assistant Physician and Lecturer in Cardiac Pathology, University College Hospital, London. Paul B. Hoeber, New York, 1919. Price \$2.25.

This little book of one hundred forty-four pages on the heart of soldiers is one of the most interesting books that has come to us. Nothing that we have read has given us so much valuable and practiced information on the heart. It has the same value to the physician in civil practice as to the army surgeon. Dr. Lewis has studied the heart from the point of view not considered before, and with opportunities which have fallen to but few. Almost daily the question comes to us to consider heart cases touching the "effort syndrome" not of soldiers alone but of patients in civil practice. No physician can invest \$2.25 to better advantage and to physicians having to do with war risk insurance, the book is almost indispensable.

COLLECTED PAPERS OF THE MAYO CLINIC FOR 1918

Rochester, Minnesota, Octavo of 1196 Pages, 442 Illustrations. W. B. Saunders Company. Cloth \$8.50 Net.

The volume of collected papers of the Mayo Clinic for 1918 is edited by Mrs. M. H. Mellish, who has edited all the volumes of the series. Forty-six contributors appear, covering eight special subjects, one on technic and one on general subjects. The papers found in this volume were presented before medical societies or reprinted from contributions to various medical journals.

The first series of papers relate to the alimentary canal, of which there are twenty-four contributed by both the medical and surgical numbers of the staff. Only a few may be mentioned in a particular way. Dr. W. J. Mayo discusses the Liver and its Cirrhosis, from an anatomic and physiologic point of view. Contributions of this character from Dr. Mayo are interesting because of the philosophic interpretation he is able to place on fairly well established anatomic and physiologic facts.

Dr. E. S. Judd reviews the frequency of carcinoma of the small intestines. Dr. Judd finds from reference to literature that 3 per cent of all carcinoma of the intestinal tract are found in the small intestines. Referring to the Mayo Clinic, he finds twenty-four cases in the small intestines, compared with 1822 in the large bowel and rectum and 1689 in the stomach.

Of the twenty-four cases of carcinoma in the small intestine, five occurred in the duodenum, eleven in the jejunum, six in the ileum and two cases in which the lesions were multiple and occurred in different parts of the small intestines, less than one-half of the per cent generally given.

Dr. Sistrunk presents for consideration an operation for permanent colostomy, which is important considering the distressing character of the condition unless the best method is employed.

Under the division, urogenital organs, there are seven papers.

Dr. Peterson presents a valuable contribution on the Effect on the Kidney of Uretero-vesical Anastomosis with Experimental and Clinical Report, and concludes that a normal or almost normal kidney and ureter should result following the implantation of the ureter into the bladder.

Dr. E. S. Judd reviews the frequency and importance of Diverticula of the Bladder from observations made at the Mayo Clinic.

Under the head of Ductless Glands, there are five papers. Dr. Kendall continues his studies on the chemical and histologic relationships of the thyroid and other ductless glands.

Dr. C. H. Mayo considers the Principles of Thyroid Surgery. The words of this master of thyroid surgery, whose observations are based on 12,000 thyroid patients are of first importance and the last that can be said.

On the heart there are three papers. One of great importance is by Dr. F. A. Williams on The Operative Risk in Cardiac Disease. It would be quite impossible to adequately review this subject without reproducing the greater part of the paper, but should be carefully read by every operating surgeon. We can only reproduce the first conclusions. The decision of operability in cardiac disease depends on factors as follows: (1) The immediate operative risk. (2) The probable improvement of the heart after operation. (3) The patient's relative chance for length of life or general health with or without operation and (4) in less serious conditions, whether the operative relief will justify the added risk.

There are six papers on the Blood. Two rather exhaustive papers on Studies on Cholesterol by Georgine Ludin, chiefly experimental.

Giffin and Sanford present some clinical observations on erythrocyte and Pemberton and Hunt on blood transfusion. There are a series of eight papers on skin and syphilis, a particularly suggestive one by Dr. J. H. Stokes on Medical Cooperation in the Problem of War Syphilis.

Dr. E. C. Rosenow presents a rather extensive

study of epidemic poliomyelitis from the standpoint of etiology and treatment. Dr. G. B. New reviews the value of radium in the treatment of neoplasms of the nose, throat and mouth and reaches the conclusion that the results are encouraging. Drs. Henderson and New review twenty-three cases of ankylosis of the lower jaw treated at the Mayo Clinic in the last eight years.

We have briefly referred to several important papers reprinted in this volume. There are several under the division of head, trunk, extremities, nerves, technic and under general subjects that we are unable to refer to.

Altogether, there is included in this volume a vast amount of material which has accumulated during the preceding year, the work of groups of extremely active men under the most favorable circumstances as to clinical material and research opportunities.

HEALTH, HEALTH INSURANCE

Old Age Pensions, Report Recommendations, Dissenting Opinions. By the Ohio Health and Old Age Insurance Commission, Columbus; February, 1919.

For some years an active discussion has been going on in relation to better medical services for workmen in cases of accident and sickness. Nearly all the countries of Europe had adopted some form of relief while we adhered to the scrap-pile methods of treating the subject and safeguarding the employer by certain legal technicalities—happily now discarded—against damages. At last through a more enlightened policy pretty generally adopted, workmen's compensation laws have found a place on the statute books of nearly all the states. Great disaster was predicted by the employer class and by the medical profession but disaster did not materialize and workmen's compensation has been accepted by all classes as a fixed policy, needing amendments in certain particulars. Following compensation legislation for accidents, comes an agitation for health insurance, extending medical relief to the sick as well as to the injured. This legislation provides a relief to the industries by imposing two-fifths upon the employe and one-fifth on the state leaving two-fifths to be paid by the employer. Serious objections have been offered to this plan by private industrial insurance companies, by the medical profession and by lodge insurance which have furnished employment to groups of lodge officers who desire modest incomes by administration of certain funds.

For the purpose of investigating the merits of civic or health insurance, certain important and progressive states have appointed commissions to hear evidence and report recommendations. Among the states appointing commissions is the State of Ohio and we have before us the report submitted. The commission appointed by the governor of Ohio consisted of the following members: W. A. Julian, Cincinnati; W. B. Hammond, Columbus; Dr. A. R. Warner, Cleveland; D. F. Garland, Dayton; O. B. Clap-

man, Dayton; T. J. Donnelly, Columbus; R. E. Lee, Akron; H. R. Mengert, Columbus, secretary; John A. Lapp, director of investigations.

The Ohio Federation of Labor, the Ohio Manufacturers Association, the State Medical Association and the Ohio Conference of Charities and Corrections were specially invited and asked to appoint advisory committees to aid the commission.

The State Medical Association appointed Dr. W. H. Snyder, an ex-president of the association. Dr. O. P. Geier, chairman section on public health, American Medical Association, Cincinnati and Dr. G. E. Robbins, formerly president Ohio Society for Prevention of Tuberculosis, Chillicothe.

The report covers 448 pages and considers the subject under twenty-three heads.

We can only present two of the recommendations included under health insurance:

First—The principle of health insurance is approved as a means of distributing the cost of sickness.

Second—Health insurance should be required for all employes, to be paid for by employers and employes in equal proportion. The state should pay all costs of state administration as in the case of the workmen's compensation act and all costs of supervision of insurance carriers.

Compulsory vs. Voluntary Insurance—In the investigations of the commission, it was found that there was but little difference of opinion as to the general principle of health insurance but when the proposition of voluntary or compulsory insurance was reached, difference of opinion appears. There were those who believed that the insurance should be voluntary, or in the "let alone policy." On the other hand it was contended that voluntary private insurance was too expensive, that many would neglect to insure if left to their voluntary choice and that a voluntary plan would not work except to a limited degree. In the opinion of the commission, "voluntary insurance means only partial insurance of only a part of the people. It means expensive insurance for those who carry it." The commission refers to the third report of the New York State Federation of Labor on health insurance which says: "To prove effective, health insurance, like workmen's compensation, must be compulsory. No other plan will work."

Those who desire a full consideration of this subject will do well to secure a copy of this report. We cannot in this review go over the methods of administration nor refer to the extraordinary statements made by certain opponents which is like the opposition often heard in relation to the League of Nations. We remember distinctly when in Germany in 1913, the great pains that were taken by leading members of the medical profession to prove to a small group of American visitors the great benefits arising from compulsory insurance and now of the numerous reports published in the "British Medical Journal" and in "The Lancet" quite at variance with quotations so often made by speakers opposed to government control of industrial activities.

A TEXT-BOOK OF UROLOGY IN MEN, WOMEN AND CHILDREN

Including Urinary and Sexual Infections, Urethroscopy and Cystoscopy. By Victor Cox Pedersen, A.M., M.D., F.A.C.S., Major, Medical Corps United States Army; Consulting Physician to the Selective Service in the City of New York. Member of the American Urological Association, American Medical Association, Etc. Illustrated with 352 Engravings of Which 152 Are Original and 12 Colored Plates. Lea and Febiger, 1919. Price \$7.00.

The author in the preface states that a text-book in medicine could not claim originality except in arrangement.

Evidence has accumulated in the past few years that the medical profession has been less informed on urogenital diseases than it should have been. Many otherwise qualified physicians and surgeons have not looked upon the subject seriously and have without investigation prescribed medicines and measures of treatment that had little relation to the condition existing. When we came to take an inventory of our young men we began to see the subject in a different light.

Fortunately a few men, of rare opportunities for acquiring experience, have presented the subject in a manner to excite our interest and have brought to us the fact that there exists many patients who can be greatly benefited by careful investigation and treatment. There are, therefore, a considerable number of books recently prepared that present the subject in different ways. Dr. Pedersen has brought out a book that will appeal to the medical practitioner because of its logical arrangement. Anatomical and physiological considerations are mostly omitted because the practitioner is presumed to be familiar with these important facts.

This book is intended apparently for the use of the practitioner who is dealing with genitourinary diseases. A portion of the book deals with instrumental examinations of the urethra, bladder and ureters. While much of the work of such examinations is done by specially trained men, there are many instances when the practitioner feels the need of doing the work himself, at least examinations of the urethra and bladder.

A TEXT-BOOK OF MATERIA MEDICA FOR NURSES

By A. L. Muirhead, M.D., Professor of Pharmacology, Creighton Medical College, Omaha, Nebraska. Illustrated. C. V. Mosby Company, St. Louis, 1919. Price \$1.50.

This book in a concise and direct manner, presents the classes of medicines generally used in the modern treatment of disease. The first section presents the subject of weights, measures and solutions, and follows the members of different classes of medicines,

their doses, effects, the diseases in which they are used, poisoning from, etc. The book is intended for nurses in training and furnishes information quickly.

CEREBROSPINAL FLUID IN HEALTH AND IN DISEASE

By Abraham Levinson, B.S., M.D., Associate in Pediatrics, Northwestern University Medical School; Associate Pediatrician, Sarah. Morris Children's Hospital of the Michael Ruse Hospital, Chicago, Ill. With a Foreword by Ludwig Hektoen, M.D. With 56 Illustrations, Including 5 Colored Plates. C. V. Mosby Company, St. Louis, 1919. Price \$3.00.

Examination of the cerebrospinal fluid has become a recognized method of diagnosis in diseases of the central nervous system and also as a therapeutic measure in certain cases. A book devoted to the subject is opportune.

Chapter one gives a historical outline of the development of spinal puncture, followed by a chapter on the anatomy and physiology of the relation of the spinal fluid. Chapter three presents the methods of obtaining cerebrospinal fluid from the living body—lumbar puncture, the risks and dangers, technic, cranial puncture. Chapter four describes the properties of normal cerebrospinal fluid. Chemical composition, physiochemical properties reaction, biochemical properties. This is followed by chapter five on pathogenic cerebrospinal fluid, physical and chemical changes, colloid gold reaction, changes in the reaction of the cerebrospinal fluid, bacteriology; immunology; agglutination; hemolysin, Wassermann reaction. Chapter six is devoted to the methods of examination of cerebrospinal fluid for diagnostic purposes. Chapter seven to cerebrospinal fluid in various diseases, and chapter eight to intraspinal treatment.

The book is printed on heavy paper which enables the printer to bring out the cuts and plates in a clear and satisfactory manner.

MILK

By Paul G. Heineman, Ph.D., Director of the Laboratories of the United States Standard Serum Company, Woodworth, Wisconsin. Octavo of 684 Pages with 237 Illustrations. W. B. Saunders Company, 1919. Cloth, \$6.00 Net.

It is needless to say that no subject has a more intimate interest to the family and to the home than milk, and no subject is receiving more public attention. The book before us is opportune, for we need accurate knowledge based on study, experimentation and experience. After presenting a brief outline of the physiology of lactation and the physiological properties of milk, the author presents a rather full discussion on the physical and chemical examination of milk, followed by a consideration of the means of

adulteration. After presenting some of the additions to restore the solids when milk is tampered with, he asserts; "Their application has never been common and is largely mythical, but skimming of milk is probably still practiced and the addition of water or skimmed milk is not uncommon." The methods of detecting adulterations are pointed out. The addition of preservatives is discussed and the dangers pointed out. Some space is given to the transmission of the toxins and antibodies through milk and the germicidal action of fresh cow's milk.

The most important fact in relation to milk is the question of micro-organisms. Nearly 150 pages are given to the study of the different varieties of micro-organisms in milk, their sources and the means of prevention. Their dangers are well known and the sanitary precautions to be observed are presented often enough to the public, and undoubtedly improvement is slowly taking place, but unfortunately, only after great loss to the public. Fermented milk is briefly discussed. Following a consideration of the bacteriologic examination of milk, comes a consideration of milk-borne infections, which needs close study, fuller authority and better trained sanitary officers. The dangers generally receive but little attention until they are on the community. There is a chapter on certified milk, also a chapter on pasteurization of milk and other methods of reducing the germ content, the control of milk-supplies, milk products, ice cream and ices, and last, condensed and desiccated milks.

PSYCHIATRIC—NEUROLOGIC EXAMINATION METHODS

By Wimmer-Hoisholt.

This is one of the most thorough and complete outlines of neurologic and psychiatric examination methods which has ever come to my notice. The author has, in a very concise manner, placed before the reader a comprehensive technique for the examination of nervous and mental cases. This work should prove of great value to any one attempting to perfect himself in neurologic and psychiatric diagnosis, and may be of considerable value to the neurologist who wishes to refresh his memory pertaining to examination methods.

F. A. Ely.

AN OUTLINE OF GENITOURINARY SURGERY

By George Gilbert Smith, M.D., F.A.C.S.
Published by W. B. Saunders Co., Philadelphia and London.

This book seems to very well fulfill the purpose of the author, in "presenting to students and to general practitioners, the important points in the symptomatology and pathology of genitourinary diseases."

It is of course not a complete nor an exhaustive treatise on the subject, profusely illustrated and intended for the use of the specialist, but will be of great value to the man who has not ready access to

the services of an expert, and must therefore rely upon his own efforts in the treatment of such cases as present themselves in the course of his practice.

The introductory chapter deals with technic in general, as well as with that of endoscopy and cystoscopy. Urinary antiseptics are discussed, urinalysis and tests of renal function are considered, followed by a chapter on congenital malformations. Succeeding chapters take up in order the various organs and structures of the genito-urinary system with their abnormalities and diseases, closing with a short and succinct treatment of the subjects of impotence and sterility.

This volume appears to the reviewer, to be of less value to the undergraduate student than to those who, through press of work along other lines, may have mislaid in their minds the information once possessed, and find, when some case must be dealt with personally rather than referred, a hazy picture of the subject, which needs the clarification furnished by such a volume as this.

It will have a distinct field of usefulness as a handy reference book and will be so appreciated. The print, the paper and the illustrations are such as help the perusal of the subject matter, and the case reports presented, add to the worth of the book and are only too few.—Captain H. R. Reynolds, M.C.

GYNECOLOGY TECHNOLOGY

With a Chapter of Sacral Anesthesia by Arnold. Sturmdorf, M.D., Clinical Professor of Gynecology, New York, Polyclinic Medical School; Visiting Gynecologist, New York Polyclinic; Fellow American College of Surgeons and of the American Medical Association, etc. Illustrated with 152 Halftone and Photo Engravings in the Text, Some in Colors and 23 Full Page Plates with 35 Figures, all in Colors. F. A. Davis Company, Publishers, Philadelphia and London, 1919. Price \$5.00 Net.

This book is a philosophic discussion of conditions requiring plastic work on the female pelvic organs. Normal conditions are considered, including tissues and mechanism, the deviations in disease, the results of lacerations. The author draws attention to the importance of considering methods to restore the parts to normal conditions in a thoughtful and logical manner; that plastic operations are not operations of emergency, but after careful pre-operative treatment.

Considerable space is given to chronic endocervicitis and its treatment, perinorrhaphy and to lacerations and displacements. The particular merit of the book lies in the study of the mechanisms of the lacerated parts and how a restorative operation may be planned to give the best results.

The technology of essential reparative work is beautifully and intelligently illustrated by many colored plates which lend important and helpful aid not only to the occasional operator, but to the surgeon of large experience.

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INFLUENZA IN AN ARMY CAMP*

E. T. EDGERLY, MAJOR, M.C., U. S. A.
Ottumwa

Chief of Medical Service, Base Hospital, Camp Dodge, Iowa

So much has already been published on influenza, that I feel a speaker on that subject at this time will have great difficulty in finding phases of the subject worthy of the time of a large convention of physicians.

The epidemic which swept over this nation last fall, attacking camp, city and country communities, was evidently the same disease, in many of its features, wherever it struck, though not always of the same virulence. I regret not having at my command data covering these points, but it would seem to me, from my reading, that it is believed that most civil communities did not suffer such heavy losses as did the camps, though some centers were harder hit than others. It was reported by a health commissioner at a meeting in Chicago, that the deaths from the epidemic in the United States, exclusive of the increased death rate at the same time from other causes, were believed to be between 600,000 and 1,000,000, not far from one per cent of the population. The death rate at Camp Dodge during October, the month of intensity of the epidemic was 2.12 per cent of the average population, which, I judge, was about the experience of the other camps. If it be true that the camps suffered a higher mortality, it is the duty of the medical corps to explain why that should be. In the first place, being under government control, there was uniformity of diagnosis and reporting, and the full statistics were recorded and reported against us; whereas in many civil communities, there was laxness in that respect.

It may be out of place for me to speak of the professional qualifications of the medical officers, but I know that while there were physicians, of course, of different abilities in the service, I have been associated in the army with the highest type of doctors and a large proportion of the lead-

ers of the profession were wearing the uniform. I believe then that professionally the army was as well equipped as the civil communities, indeed many of the latter suffered from the absence in the army of a large number of their doctors, the physicians left at home being worked to the point of exhaustion. We had an excellent hospital, as efficient for handling the sick as the finest of brick and marble in our largest cities. We were embarrassed by the rapid increase in numbers of patients, but that was true everywhere. We had our patients in one section, so that one physician could care for more patients than one could do in private practice where much of his time was consumed in getting about often over difficult roads. At times some men had the care of as many as 180 cases. One nurse or orderly could also cover a number of cases. What, then, was there peculiar to the army camp to explain a high mortality among groups of selected young men, from whom the unfit, as far as possible, had been eliminated. On the other hand they were of the age which in civil communities suffered the most. We did not have children, comparatively few of middle age, and no old people. These young men had been brought from their homes and their home ways of living, where they lived one or two in a room, or two to ten in a house, to live under new conditions, with 30 to 180 in a barracks, perhaps 50 in one room, sleeping with only two or three feet between cots, an arrangement that works all right when the men are well. These men came from different climatic conditions, as we had them from Alaska, Hawaii, Montana, Alabama, the Dakotas and Minnesota, Oklahoma and Tennessee. While this explanation may not apply in this epidemic, we believed that one reason that all contagious diseases are so rife in camps, is that men in their own, and particularly, rural communities, acquire an immunity to the strains prevalent in those communities, but remain susceptible to those common elsewhere. While some of the men were already hardened to camp life and work, all were not and some were still somewhat exhausted by their new physical exactions, so that an acid-

*Presented at the Sixty-Eighth Annual Session, Iowa State Medical Society, May 9, 10, 11, 1919, Des Moines, Iowa.

osis, which is produced by fatigue and exposure to wet and cold, reduced their resistance to infections. These young men did not have a tender mother, sister or wife on the lookout for the slightest evidence of sickness, on which they would order them to remain at home or go to bed, but were under the gentle ministrations of a top-sergeant, who did always believe a man was sick because he said so. Then, too, under the stimulus of a false pride, the soldier is often unwilling to go on sick-call, but thinks he "can wear it out." This would keep many men from getting to bed early, and above all other things it was developed that "early to bed and late to rise," was the first essential to the proper treatment of this disease. After admitting the soldier is sick, the next move is not what it would be at home, slip off his clothes, and get into bed in the next room or upstairs; no, he must go on sick-call to the regimental infirmary, where there may be some delay in examining and recording, a wait for the overworked ambulances, a ride, unload at the hospital, another wait in a crowded receiving ward, another examination and record, assignment and transport to wards which it was difficult to get ready ahead of the rapidly increasing requirements. All of this was time taking and certainly not of benefit to the patient, but what else could be done under such unusual circumstances? I believe the squad huts, holding nine men each, which the army was building and were unfinished at the time of the armistice, would have permitted the abating of some of these difficulties, particularly at times of epidemics. It would seem certain that the most virulent type of the organism, the militant type, perhaps, visited the cantonments. Whether the concentration of patients may have an effect in increasing the virulence of strains, is a natural query, not as yet answered, so far as I know. The sorting of patients, to give the pneumonias the best accommodations also necessitated some extra handling and moving.

From the time the patient was comfortably placed in bed, one does not see that he was under any disadvantage as compared with his brother at home unless from the absence of familiar faces and individual care. This would be equally true of any large city hospital, with whose figures it would be fair to compare those of the camps.

Source—The camp epidemiologists studied the early cases in an attempt to discover how the disease was brought to us. It would seem that there were a number of cases, coming recently from infected communities or camps, which might have introduced the infection. I quote the following as an example:

On September 21, thirty drivers of ambulances, who had driven to Chicago, during the previous week, came back from that city, where the epidemic was then raging, after having stayed over two days; two of this group were taken sick on the train and were admitted to the base hospital on September 22. Ten of the thirty contracted the disease. They were probably the greatest and earliest source of the disease in the camp.

It seemed early proven by study of the development of the disease, both in barracks and hospital, that contact was the means of transmission, and that the period of incubation was generally two to four days.

The order had been issued some time before we were sure the epidemic had reached us, to isolate by army cubicle and to enforce the use of the face mask when outside the cubicle in all cases of infection of the respiratory tract. We endeavored by culture to find the influenza bacillus, but this proved of no value, as it was not found to be the predominating organism, and not more prevalent than for the months preceding; furthermore, the search caused delay and thereafter the diagnoses were made clinically. Whites and negroes contracted the disease in practically the same per cent, 30 per cent. The admission curve showed a rocket like course: September 25, 50 cases; October 1, 809 cases; October 3, 1275 cases; October 8, 746 cases; October 12, 209 cases; October 20, 38 cases.

The usual bed capacity of the hospital ran from 2000 to 2200, according to the number put in each ward; this by use of porches and corridors was increased to nearly 3000. Over sixty barracks, K. C. and Y. buildings were taken over for patients, additional officers and nurses, so that we were able to put to bed the maximum number of 8000 patients on one day. This meant the evacuation of these buildings, their cleansing and oiling, equipping with cots, bedsacks filled with straw, sheets, blankets, pajamas, sick-room utensils, medical supplies, the establishment of convenient messes, for the feeding of these large numbers was no small task. Many articles could not be supplied by the quarter-master department, and had to be purchased in the open market, brought out and distributed in all too short a time. This could not have been done on so short a notice without the assistance of the Red Cross. Four hundred volunteer nurses were brought in, quartered and assigned to duty. Over 200 of the nursing staff were taken ill, and eight of them gave their lives. Nearly all the medical officers and dentists from the regular organizations in camp and from the hospital units mobilizing there were called into

service, and over thirty were sent in from Fort Riley and other points. Over 1000 men from line organizations were used as guards and orderlies.

Symptoms—A critical analysis of several hundred case histories by Capt. Jas. H. Carr, professor of medicine, Northwestern University, gave the following:

The onset is sudden with headache, anorexia, fever usually above 101°, chilly sensations rather than distinct chills, cough of variable degree, conjunctivitis, pharyngitis, coryza, backache and general muscular soreness. Symptoms of less frequency, but common and important, are nausea, epistaxis and pain in the chest. A marked apathy is common; delirium of a mild type is common at night, especially, where the temperature is high; it is rarely of an active type before the onset of complications. Pulse and respirations are relatively low. The mouth is likely to get into bad condition; the tongue is heavily coated, sometimes fissured and swollen; sordes is common; the breath often very offensive; herpes was not seen.

In round numbers there were 11,000 cases of influenza in the camp and from September 16 to December 15, 2081 cases of pneumonia were officially reported. Our later study both of convalescent patients and of the charts convinced us that in the stress of work, the paper work was not always complete and exact and that 500 or more cases of mild pneumonias went through as simple influenzas. The post-mortem findings showed every case had had a pneumonia, so the conclusion seems warranted that no patient died of an uncomplicated influenza. While it is unwise to submit the patients to frequent and prolonged examinations, one must examine the back to be sure of the lung conditions. As the pneumonias were practically always broncho-interstitial, lobular or mixed, and not lobar, signs were more difficult to elicit satisfactorily, but were patchy areas of consolidation, shown by impaired resonance, or dullness, bronchial or broncho-vesicular breathing, fine rales, and perhaps most typical, diminished or distant breath sounds, especially in a base posteriorly. A persistent high temperature, or a secondary rise, were very suggestive. Pain in the chest was not so characteristic as in lobar; sputum was bloody rather than rusty. The cyanosis, bleeding from nose and elsewhere, the occurrence of subcutaneous emphysema, were symptoms, which to us seemed to stamp the epidemic as different from those of the past. In two-thirds of the cases, the onset of the pneumonia was discovered before the seventh day after the initial symptoms of influenza. Abdominal symptoms were present in about 3 per cent

of this series of cases. The head surgery department reported seeing during the epidemic, ten cases of otitis media suppurativa; 275 cases of otitis media non-suppurativa; 120 cases of otitis externa hemorrhagica. This does not include the cases of suppurative ear or mastoid disease, which showed up later, the number of which was hardly as large as had been expected.

Few cases of endocarditis were found, but a larger number of pericarditis were diagnosed. Thrombo-phlebitis of femoral veins followed in a considerable number of cases, and generally resulted in nearly complete recovery. In five cases of meningitis seen, four showed pneumococcus in the spinal fluid.

The leucocyte count in the purely influenzal cases ran low, 6000 to 9000. An increasing count either signified the onset of a pneumonia, or of a suppurative process somewhere, *e. g.*, an empyema, of the latter we feel certain, but there were enough cases of pneumonia without a leucocytosis to raise a reasonable doubt whether a pneumonia, unaccompanied by pus formation would produce a leucocytosis.

The Organism of Influenza—After some vacillating in opinion, our present conclusion is, that, while the bacillus influenza may be the favorite, it is not demonstrated that it is the cause of the recent epidemic and we prefer the position that its cause is at present unknown; further we are not sure that the so-called secondary invaders, varying in different camps and localities (pneumococcus, streptococcus hæmolyticus, staphylococcus, bacillus influenza), should be credited for the pneumonic complication, but should be recognized as responsible for the pus complications. In other words, the cases classed as influenza become pneumonias, not by the activities of a secondary organism, but rather by a deeper invasion into the tissues of the lung by the primary or original offender.

Empyema—This subject has been reported elsewhere, by Captain Manson, chief of the surgical service, and I will not deal with it statistically, but give a brief mention, only. Our experience, both in the spring and fall epidemics, confirmed the reports of other camps and of the empyema commission, that there was unusual difficulty in diagnosing collections of fluid which were located anywhere in the chest cavity; that voice and breath sounds may be heard abnormally distinctly in the presence of pus; that diminished tactile fremitus was the most dependable sign; early operations, either by rib resection or thoracotomy resulted disastrously: it was a great temptation to try to do something for men with such distressing

symptoms, hoping to reduce toxemia, or to relieve embarrassed respiration; that in case it became necessary to remove fluid for mechanical reasons, as for a displaced heart, aspiration should be resorted to until the pneumonia subsides and the fluid becomes frankly purulent; that the avoidance of pneumothorax was the chief desideratum, best accomplished by procedures maintaining a negative pressure, the trochar and canula method, with clamp on catheter, and evacuation by suction syringe, and use of Dakin's solution, proving eminently satisfactory in our hands. The cases which hung on in our service, were those of last spring and early fall, done in our own hospital, and those from other camps and from overseas, on which thoracotomies and resections had been done. In some few cases, a secondary operation of resection of one or more ribs may be necessary and after adhesions are formed should be satisfactory. No large operations were done at Dodge, but I saw some x-ray plates at the Letterman General in San Francisco, showing good results by the Estlander operation. As all of us had been used to seeing uniform, usually prompt recoveries from rib resections in empyema of pneumococcus types in civil life, or our first results with this type were startling and discouraging.

Pathology—Major Dwinnell, chief of the laboratory service, reported the following findings in 122 autopsies:

Broncho-interstitial pneumonia.....	49
Lobular pneumonia.....	45
Mixed pneumonia.....	24
Lobar pneumonia.....	4
Empyemas	70
Infected sero-sanguinous pleuritis.....	22
Acute tracheitis and bronchitis.....	122
Parenchymatous degeneration of kidneys.....	110
Acute adrenalitis.....	73
Acute splenic tumor.....	68
Pericarditis	29
Mediastinitis	38
Peritonitis	12
Myocarditis	12
Lung abscess	11
Pleural pus pockets.....	17
Inter-lobar pus pockets.....	11
Vegetative endocarditis.....	2

In either the lung tissue, pleural fluids or heart's blood, hemolytic streptococcus were found in eighty-five cases, influenza organisms in thirty-nine, pneumococcus, non-hemolytic streptococcus and staphylococcus hæmolyticus in smaller numbers.

Treatment—No drug treatment was found which showed any definite specific value, and

our conclusions are that patients do best, who are put to bed early, kept warm, with plenty of fresh air and fluids, simple nourishing food, disturbed as little as possible, forbidden to go to latrines, the minimum use of aspirin and other analgesics, to keep comfortable; the use of alkalies, *e. g.*, liq. ammon. acetatis; keeping them in bed too long rather than too short a time.

Hearts were dilated in cases who were returned to their regiments and were early put to duty. We found blood counts a valuable criterion and adopted the rule not to discharge patients until blood counts fell to 10,000. Early, this precaution, on account of the large numbers, could not be carried out; we knew of a few instances of return with late development of pus pockets.

Over 2000 intravenous injections of glucose, formalin and peptone solutions were given, and the mortality in those all averaged 20 per cent., as against 35 per cent for all pneumonias. A very limited study of blood pictures seemed to indicate the value might lie in their arousing a leucocytosis. Many cases showed a decided reaction with chill, which seemed to be a favorable symptom. The use of convalescent serum was tried later and when given early in the case, it was the opinion of careful observers was of value, but it was not so in advanced desperate cases, except in a few instances.

Several hundred down in the camp were given prophylactic doses of commercial vaccines, but the reports were not favorable. Several thousand shots of vaccine were given to influenza patients in the hope the incidence of pneumonia might be reduced. Careful analyses were impossible, but while a few thought they saw some benefit, the majority were much in doubt. All, including men of great clinical experience in our largest city hospitals, agreed that this epidemic differed from any in their professional careers, and in the words of one of them, "this is not influenza, this is not pneumonia, this is the plague."

From our observation that practically none of the officers, nurses and enlisted personnel, who went through the spring epidemic, whether ill then, or not, were attacked in the fall, it would seem that an immunity may be acquired, and this lends hope, that some serum or vaccine may be produced, after the offending organism has been definitely identified, that will produce an artificial immunity.

The history of the 168th Regiment should be credited to Dr. Van Meter who prepared the record under the direction of the division surgeon. We did not know of this fact at the time of publication.—(Editor.)

BACTERIOLOGY AND PATHOLOGY OF INFLUENZA*

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The consideration of both the bacteriology and the pathology of influenza in a paper of appropriate length, for presentation here means that such will need to be rather concise and not devoted to any lengthy discussion of mooted points.

BACTERIOLOGY

In 1892, near the close of the great pandemic of influenza which swept over the earth during the three years preceding, Pfeiffer¹ discovered a bacillus in a number of cases of that disease, which he thought was probably the cause of the condition. From that time until the appearance of the present great epidemic, the *Bacillus influenzae* of Pfeiffer has been rather generally accepted, tentatively it is true, as the exciting cause of this disease.

During the interval between the pandemic which ended in 1892 and the one which started in 1918, Pfeiffer's influenza bacillus was found in connection with a number of diseases of the respiratory system such for instance, as measles, whooping cough, etc.—conditions that had no connection whatever with influenza. It was also frequently found in the normal throat. The finding of this organism under such conditions naturally threw considerable doubt on its specific etiologic relationship to the epidemic disease, influenza. It was, however, assumed that the absence of the rather definite clinical manifestations under these conditions, was due to the fact that the bacillus had, for the time being, lost considerable of its virulence.

When the present epidemic first appeared in this country in September, 1918, the bacteriological findings as reported by Keegan² were to the effect that Pfeiffer's influenza bacillus was recovered from 82.6 per cent of the lungs at necropsy—in 31.6 per cent of which they were found in pure culture. It was therefore assumed by him and his coworkers that the epidemic was caused by a specific virulent strain of the influenza bacillus. The disease rapidly spread over the entire country. Bacteriologists in the Middle³ and far West⁴ were not able to find the in-

fluenza bacillus in as high a proportion of the cases as was done in Boston and New York. In only one of our cases—one of influenza bacillus meningitis—was it found as the sole infecting organism. As the epidemic proceeded, the Pfeiffer bacillus also seemed to play a less prominent part in Eastern localities⁵. Reports from foreign countries⁶ are to the effect that the bacillus was found rather frequently in England but infrequently in France and Germany. Pfeiffer himself was able to find it in only a comparatively few of the influenza cases which he investigated. Various immunity experiments⁷ and tests⁸ indicate that some immunity to the influenza bacillus is developed in some cases of influenza. On the other hand there is no definite evidence to the effect that vaccines⁹ prepared from the influenza bacillus afford any immunity to the disease.

We have therefore come to the conclusion that the bacillus of Pfeiffer may not be the specific cause of influenza. This bacillus does, however, have pathogenic properties, is commonly found in the normal respiratory tract and in connection with various diseases of that system¹⁰. Its pathogenicity is not only indicated by the fact that it has been found in pure culture in a number of cases of pneumonia¹¹, meningitis¹², etc., but also by experimental evidence both on the lower animals¹³ and the human being¹⁴. This organism may therefore be regarded as having the same relationship to influenza as does the pneumococcus, streptococcus and other known bacteria, namely, that of being a secondary invader.

Among the more important of the other bacteria found associated with lesions of influenza are the following:

Pneumococcus—Pneumococci are without doubt the most important of the secondary invaders. We found them in 32 per cent of our cases. They have been found in as high as 62

5. Kinsella, R. A.: The Bacteriology of Epidemic Influenza and Pneumonia, Jour. A. M. A., 72: 717, (March 8) 1919.

6. British Medical Research Committee: Influenza: Abstracts of Foreign Literature, Jour. A. M. A., 71: 1573, (Nov. 9) 1918.

7. Parker, I. T.: A Filtrable Poison Produced by B. Influenzae (Pfeiffer), Jour. A. M. A., 72: 476, (Feb. 15) 1919.

8. Rapoport, F. H.: The Complement Fixation Test in Influenza Pneumonia, Jour. A. M. A., 72: 633, (March 1) 1919.

9. McCoy, G. W.; Murray, V. B.; Teeter, A. L.: The Failure of a Bacterial Vaccine as a Prophylactic Against Influenza, Jour. A. M. A., 71: 1997, (Dec. 14) 1918.

10. Lord, F. T.; Scott, A. C.; Nye, R. N.: Relation of Influenza Bacillus to the Recent Epidemic of Influenza, Jour. A. M. A., 72: 188, (Jan. 18) 1919.

11. Keegan, J. J.: The Prevailing Pandemic of Influenza, Jour. A. M. A., 71: 1051, (Sept. 28) 1918.

12. Wollstein: Jour. Exper. Med., 1911, 14 p. 73.

13. Albert, Henry and Kelman, S. R.: The Pathogenicity of Bacillus Influenzae for Laboratory Animals. The Journal of Infectious Diseases. Vol. xxv, No. 6, Dec., 1919, pp. 433-443.

14. Davis, D. J.: Successful Human Inoculation with Pure Cultures of Pfeiffer's Bacillus (B. Influenzae), Jour. A. M. A., 72: 1317, (May 3) 1919.

*Presented at the Sixty-Eighth Annual Session, Iowa State Medical Society, Des Moines, May 7, 8, 9, 1919.

1. Pfeiffer, Deut. Med. Woch., ii, 1892.

2. Keegan, J. J.: The Prevailing Pandemic of Influenza, Jour. A. M. A., 71: 1051, (Sept. 28) 1918.

3. Nuzum, J. W.: Pilot, I; Stangl, F. H. and Bonar, B. E.: Pandemic Influenza and Pneumonia in a Large Civil Hospital, Jour. A. M. A., 71: 1562, (Nov. 9) 1918.

4. Lamb, F. H., and Brannin, E. B.: The Epidemic Respiratory Infection at Camp Cody, N. M., Jour. A. M. A., 72: 1056, (April 12) 1919.

per cent¹⁵ of the cases. Organisms of all four types of pneumococci have been found, with types II and IV predominating¹⁶.

Streptococci—Streptococci are scarcely second to pneumococci in importance as bacteria found in connection with cases of influenza. Streptococci of both the hemolytic and viridans types are found—sometimes one and sometimes the other predominating. Mathers found a green-producing or viridans type of streptococcus in 87 per cent of 110 cases of the disease and Tunnicluff¹⁷ found that the blood of a number of influenza patients contained specific opsonins for this organism. This diplo-streptococcus has also been reported as the most constant microorganism isolated from cases of influenza by certain bacteriologists in Germany and England.

Hemolytic streptococci were found by Nuzum¹⁸ in 43 per cent and by Tonney¹⁹ in 27.6 per cent of cases in Chicago. Lamb and Brannin²⁰ reported the finding of streptococci of the two types in 63 per cent of the autopsies at Camp Cody, New Mexico.

Other bacteria occasionally found are *staphylococci*, *Micrococcus catarrhalis*, *Friedlander's pneumobacillus* and a *small bacillus* having the general morphology and staining characteristics of the influenza bacillus but which is capable of growing on plain agar.

Filtrable Virus—Roux, Nicolle and Le Bailly²¹ report the isolation, from a number of cases of influenza, of a very small coccus capable of passing through a Chamberland filter. They claim to have reproduced the disease, influenza in both monkeys and man by injections with this microorganism. Gibson, Bowman and Connor²² report the finding of a similar filtrable organism in the sputum of cases of influenza and the lung and kidney tissue of infected animals.

15. Stone, W. J. and Swift, G. W.: Influenza and Influenzal Pneumonia at Fort Riley, Kansas, Jour. A. M. A., 71: 487, (Feb. 15) 1919.

16. Stone, W. J. and Swift, G. W.: Influenza and Influenzal Pneumonia at Fort Riley, Kansas, Jour. A. M. A., 72: 487, (Feb. 15) 1919.

17. Tunnicluff, R.: Phagocytic Experiments in Influenza, Jour. A. M. A., 71: 1733, (Nov. 23) 1918.

18. Nuzum, J. W.; Pilot, I.; Stangl, F. H., and Bonar, B. E.: Pandemic Influenza and Pneumonia in a Large Civil Hospital, Jour. A. M. A., 71: 1562, (Nov. 9) 1918.

19. Tonney, F. O.: The Bacteriology of the 1918 Outbreak, A Report on an Epidemic of Influenza in the City of Chicago in the Fall of 1918, p. 41, 1911-1918. Department of Health, City of Chicago.

20. Lamb, F. H. and Brannin, E. B.: The Epidemic Respiratory Infection at Camp Cody, N. M., Jour. A. M. A., 72: 1056, (April 12) 1919.

21. Nicolle and Le Bailly, Compt. rend. acad. ci. sc., 1918, clxvii, 607.

22. Gibson, H. G.; Bowman, F. B. and Connor, J. I.: Etiology of Influenza, British Medical Journal, 2: 331, (March 22) 1919.

PATHOLOGY

The pathology of influenza as such is but little understood.

The profound rapidly produced prostration as seen in the more marked cases and the associated leucopenia indicates that it is a systemic process, certainly a toxemia with, most likely, the presence in the circulation of the infecting virus.

The most obvious local lesions probably produced by the specific virus of influenza occur in the respiratory tract, which is, no doubt, the chief portal of invasion. These may consist of an acute rhinitis, pharyngitis, laryngitis, tracheitis, bronchitis, congestion of the lungs with, at times, rather marked serous exudative inflammation often referred to as pulmonary edema—or, it may be a combination of any or all of these. The inflammation consists chiefly of hyperemia with serous exudation.

The pathology seen after a fatal termination, is no doubt in all cases, chiefly the result of the bacteria, which invade the body secondarily. The most important lesions seen at the time of the necropsy are as follows:

Pleural Effusions—Pleural effusion²³ is of common occurrence. It was present in all but one of our cases. The fluid is of a sero-hemorrhagic type and varies from 50 to about 300 c.c. in amount. This is very different from what we ordinarily see in lobar pneumonia with its large amount of fibrinous exudate or streptococcic pneumonia with enormous quantities of fibrino-purulent exudate. Only 15 per cent of our cases contained a small amount of fibrinous exudate in addition to the sero-hemorrhagic fluid and only 10 per cent contained pus. This relative infrequency of occurrence of empyema is in marked contrast to the frequency with which this condition accompanied the cases of streptococcic pneumonia during the winter of 1917-1918. It is however to be noted that as the epidemic progressed, cases of empyema became more frequent.

These pleural effusions are scarcely to be regarded as the evidences of pleurisy, since the pleura are for the most part smooth although somewhat dull in appearance. The fluid is, I believe, chiefly edematous and the blood is derived from the lungs which are markedly hemorrhagic and which usually present rather strikingly significant areas of hemorrhage just beneath the pleural surface.

Broncho-pneumonia—The most typical pathology of fatal cases of influenza is seen in the lungs. These are usually involved by pneumonia

23. LeCount, E. R.: The Pathologic Anatomy of Influenzal Broncho-Pneumonia, Jour. A. M. A., 72: 650, (March 1) 1919.

consisting chiefly of a broncho-pneumonia type. It differs however from the ordinary broncho-pneumonia, in that the lung involvement, more especially that of the lower lobes is extensive and massive, due to a confluence of the broncho-pneumonic areas. This is usually so marked that the lower lobes give the general impression of being affected by lobar pneumonia.

The size and shape of the lung as it exists in the thoracic cavity is well retained. This is due chiefly to the presence of the inflammatory exudate.

Influenzal pneumonic lungs present a greater variety of color than is usually seen in pneumonia. The anterior portions, more especially the margins of the upper lobes, are lighter than normal in color, due to an acute vesicular emphysema—the air sacs being visibly—in some instances, markedly, enlarged. This was present in every one of our cases. The remaining portion of the lung, not involved by consolidation, is of a light pink color due to congestion and hemorrhage. The posterior surface and indeed the greater portion of the surface of the lower lobes is of a dark reddish purplish color. This is the portion that is consolidated. Here and there, more especially over the consolidated portion, are small bright reddish colored areas due to subpleural hemorrhages. These areas which vary in size from that of the head of a pin to about half an inch in diameter, many of them presenting a streaked appearance as if they had been painted on, formed one of the most strikingly significant findings in these cases of influenzal pneumonia.

On palpation, the emphysematous areas have a feathery feel; the consolidated posterior portions are very firm. The remainder of the lung is rather soft and pits on pressure. In it numerous hard broncho-pneumonic nodules can be felt.

The cut surface is very moist. On pressure a large amount of bloody frothy fluid is squeezed out of the air-containing portion of the lung. The solid areas are also rather moist—more so than is seen in lobar pneumonia.

The consolidated areas are, for the most part, of a reddish color although in some of the older cases they are grayish. The smaller areas of solidification found in the upper lobe measure from one-fourth to one-half inch in diameter and are similar to those ordinarily found in broncho-pneumonia.

In the posterior portions of the upper lobes these areas are larger and in many places, confluent. It is the confluence of these that causes practically the entire lower lobe to be solidified.

The mucous membrane of the bronchi is red-

dened. The lumen usually contains a considerable amount of thin, frothy, bloody fluid with but little mucus or pus.

The pathology of the lungs varies somewhat with the kind of secondary infecting organism.

Microscopically, the lung tissue generally shows distended blood-vessels, and a slight amount of serous fluid in the air vesicles. The pneumonic areas show a hyperemic condition of the bronchi with more or less leucocytic infiltration of the wall and the presence of a small number of these cells in the lumen. The air cells surrounding the bronchi are partly filled with red corpuscles, leucocytes, fibrin and desquamated epithelial cells. There is much blood pigment. Microscopically there is more fibrin than is ordinarily seen in broncho-pneumonia but less than occurs in the lobar type of the disease.

The question naturally arises as to whether this broncho-pneumonia is to be regarded as a part of the disease influenza or is its most serious complication. It is present in practically every fatal case of the disease and it is no doubt very much more commonly present than is ordinarily recognized clinically. We regard it as a complication caused by the secondary bacterial invaders. It is, however, not the sole cause of death. In some instances there are no areas of consolidation—and microscopically but little evidence of inflammation. Grossly the lungs present a water-logged condition due to the presence of a large amount of serous fluid. At the time of the post-mortem examination and, in some instances, even before death, frothy fluid escapes from the nose and mouth. Such individuals are often said, rather improperly however, to "drown in their own secretions."

Other pathologic conditions of rather frequent occurrence are: inflammation of the accessory sinuses of the nose²⁴; otitis media; mastoiditis; edema of the brain; albuminoid degeneration of the liver and kidneys and emphysema. There is acute vesicular emphysema in practically every fatal case. Frequently also there is interstitial emphysema of the lungs with the extension of the emphysematous process to the interstitial tissue of the mediastinum and along the course of the larger vessels into the abdomen. A number of cases of rather general subcutaneous emphysema due to escape of air from the lungs have been reported.²⁵

24. Robertson, H. E.: Influenzal Sinus Disease and its Relation to Epidemic Influenza, *Jour. A. M. A.*, 70: 1533, (May 25) 1918.

25. Berkley, H. K. and Coffen, T. H.: Generalized Interstitial Emphysema and Spontaneous Pneumothorax, *Jour. A. M. A.*, 72: 535, (Feb. 22) 1919.

SUMMARY AND CONCLUSIONS

1. The epidemic disease influenza is caused known, agent. The evidence that the Pfeiffer bacillus is the specific cause is still inconclusive.

2. The bacteria which are the most common secondary invaders are the pneumococci; streptococci of both the hemolytic and viridans type; Pfeiffer's influenza bacillus; Micrococcus catarrhalis; staphylococci and pneumobacilli.

3. The bacteria most commonly isolated from cases of the disease vary as to locality and time of occurrence dependent, no doubt, on the predominance of a particular organism or of several organisms in the community at any particular time. This accounts very largely for the variation in the findings of different bacteriologists and also accounts at least in part, for the variation in the severity of the epidemic in different communities and under varying circumstances.

4. The pathologic lesions produced by the virus of influenza are but little understood. Among the more important probable changes are an acute inflammation of a part or the whole of the respiratory system; a leucopenia; and a degeneration of the more highly specialized cells of the body. Lowering of the resistance of the body enables any pathogenic bacteria that happen to be present, to gain a foothold.

5. The most prominent pathological changes seen in fatal cases are no doubt the work of the secondary bacterial invaders.

6. The most important lesion at the time of the post-mortem examination is broncho-pneumonia of a massive confluent type. The fatal termination is chiefly due to such.

7. The pathology in the lungs differs somewhat—dependent on whether the pneumonia is produced chiefly by pneumococci, streptococci or Pfeiffer's influenza bacillus.

8. The rapid and extensive confluence of the broncho-pneumonic areas is no doubt due to the rapid growth of the secondary invaders in lung tissue, the resistance of which has been lowered by the virus of influenza.

9. Other pathological conditions of frequent occurrence are inflammations of the upper respiratory system; the accessory sinuses; the middle ear; the pleura; degeneration of the liver and kidneys; emphysema within the lungs, the interstitial tissue of the thorax and abdomen and sometimes also of the subcutaneous tissue.

CONTROL OF INFLUENZA EPIDEMICS*

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To control epidemics of any infectious disease effectually we must have some knowledge of the source of the infectious material and the manner in which it is transferred to the susceptible individual. In order to be positively certain of the source of the infectious material we must have some knowledge of its nature. As yet we really know very little about the infectious agent of influenza. It may be the green producing streptococci, the hemolytic streptococci, the influenza bacillus of Pfeiffer, the pneumococcus, the micrococcus catarrhalis, some other bacterium or a filterable virus. Neither do we know the manner in which the infectious agent produces injury to the body. The organism may be one which produces a soluble toxin or it may be one which acts in some other way to cause the injury. Regardless of our ignorance concerning the etiological factor, we have reason to believe that the infectious agent exists in the respiratory tract of man and that its chief portal of exit from the body is the respiratory tract. The portal of entry is undoubtedly principally the mouth and nose.

The possibility of infection through the eye has been emphasized by Maxey¹. Hill and others have also mentioned the possibility of the eye as a portal of entry. When the eye acts as a portal of entry, it, together with the lacrimal duct, simply offers another possibility of transmitting the infection to the respiratory tract.

The usual methods of transfer of the infectious agent in this type of disease is by direct contact, by indirect contact, by droplet infection and by food, particularly milk. In influenza we have assumed that the chief methods of transfer were direct contact and droplet infection. Lynch and Cumming² have emphasized the importance of indirect contact as a method of transfer. In 66,000 troops and 18,000 employees of hotels and department stores, they noted that 85 per cent more cases developed among those who ate from hand washed dishes than those who ate from machine washed and sterilized dishes.

The fundamental principles underlying the control of this type of infectious diseases are as follows: (1) Early diagnosis of cases, mild cases and carriers; (2) Prompt isolation of cases and

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1. K. F. Maxey: J. A. M. A., Vol. lxxii, p. 63.

2. Lynch and Cumming: Amer. Jour. of Public Health, Vol. ix, p. 25.

carriers; (3) Exclusion of susceptible individuals; (4) Prompt reporting of cases and carriers to health authorities; (5) Careful collection of infective material at the bedside; (6) Careful disinfection of infective material; (7) Care of patients and attendants; (8) Immunization of contacts and others; (9) Observation of contacts; (10) Tracing source of infection; (11) General sanitary measures; (12) Personal hygiene.

An endeavor will be made to estimate the value of those different fundamental principles in the control of influenza.

For successful control of any infectious disease it is essential that the cases be diagnosed early and that the mild cases be not overlooked. In influenza this is a particularly difficult problem, because of the unsatisfactory clinical and differential diagnosis from other acute infections. The laboratory has so far been unable to aid in the diagnosis of influenza. In order to detect cases and mild cases it is essential that we have some organization to assist in the search for them. We cannot wait until a physician is called. There should be a health organization authorized to make house to house canvasses in an effort to find unrecognized cases or cases in which physicians had not been called.

From our knowledge of other diseases we have reason to believe that there are numerous healthy carriers of influenza. McLaughlin³ cited an instance which indicates rather conclusively from an epidemiological point of view that there are healthy carriers of influenza. A ship was going to Alaska from a Western point. It was deemed advisable to exert every effort to keep the disease out of Alaska. An examination of passengers was made separately by three individuals, one an officer in the Public Health Service. The results were such that they weeded out those considered as possible carriers of this disease. The ship sailed and on that long voyage to Nome no sickness occurred on the ship. The passengers landed. Within the period of incubation the disease appeared and spread rapidly in Alaska. The carriers were on the ship, but our present methods of detecting them failed to weed them out.

Prompt Isolation—Prompt isolation of all cases and carriers, would, of course, stop the epidemic. We cannot hope to isolate all cases and carriers, but inasmuch as we can isolate them we will diminish the foci of infection. Prompt isolation of any considerable number of the cases or carriers will flatten the curve of the epidemic

and make possible the proper care of those who are sick.

Exclusion of Susceptible Individuals—We may at present consider as susceptible individuals all those who have not had influenza except those who have been constantly exposed to cases without developing the disease. We may have considerable difficulty in finding individuals who are immune to influenza to act as attendants of patients. Under these conditions it is advisable to select as attendants persons within the age groups, less susceptible to the infection and to exclude those who are particularly susceptible or those in whom the prognosis would be grave should they develop the disease, that is, persons in poor physical condition, pregnant women, etc.

Prompt Reporting of Cases and Carriers—In order for health authorities to be of any assistance in the control of infectious diseases, they must know when, where and under what conditions these diseases are occurring.

Careful Collection of Infectious Material at the Bedside—Every effort should be made to collect all secretions from the respiratory tract. All sputum should be collected in old cloths, cheap handkerchiefs, gauze or soft paper. If this is impossible the sputum should be deposited in some water tight container. Collection of small droplets given off in the acts of sneezing or coughing, etc. is much more difficult. Patients should be instructed to carefully cover the mouth and nose with a clean handkerchief or other suitable material when coughing or sneezing.

It is advisable to have the patients wear a mask, provided the mask does not interfere too much with respiration. The welfare of the patient should, of course, be the primary consideration. A proper mask, properly worn, will be of material assistance in collecting infective material.

Disinfection of Infectious Material—All infectious material should be disinfected. If this infectious material is collected in cloths or other substances which can be burned, burning is the most effective method. If the secretions of the respiratory tract are collected in water tight containers, they may be disinfected by heat, preferably, or by some chemical disinfectant such as formalin, chlorinated lime or carbolic acid.

Care of Patients and Attendants—If the patient is conscious and rational he should be instructed as to the danger of infecting others. Attendants should use great care to aid patients in collecting and disinfecting all infective material. The attendant should also endeavor in every way possible to keep from transferring infective ma-

3. A. J. McLaughlin, Amer. Jour. of Public Health, Vol. ix, p. 38.

terial to her own respiratory tract. She should always bear in mind that there is no immunity which protects against overwhelming dosage of infective material.

It is advisable to have the attendant wear a mask even though the patient is wearing one. The wearing of masks has in the past given protection against pneumonic plague. Weaver⁴, since June 1, 1916, has required all nurses in the Durond hospital to wear gauze face masks. This procedure has reduced the number of diphtheria carriers from 23.5 per cent to 5.2 per cent. Weaver⁵ also reported that the wearing of gauze masks by nurses attending scarlet fever patients has kept them from contracting this disease since June, 1916, whereas previous to that time nine cases of scarlet fever had occurred in 112 nurses on duty in the scarlet fever wards. Capps⁶ states the face mask has proved an undoubted success in protecting nurses and physicians from contagion. Benard⁷ believes that wearing of face masks will protect the attending personnel from becoming carriers or contracting the diseases they are attending. Vincent⁸ reports favorable experience with masks. Doust and Lyon⁹, also Haller and Colwell¹⁰ emphasize the fact that masks constructed of coarse or medium gauze where only two or three layers are used do not protect against droplet infection. They recommend six to ten layers of coarse, four to six layers of fine gauze, or three layers of butter cloth, as providing an efficient mask. Weaver agrees with their conclusions and has recommended a mask with finer mesh, although he had good clinical results from the wearing of a coarse gauze mask, composed of three layers. Various others have condemned the mask as of little value.

A great deal depends upon the construction and composition of the mask. A suitable mask should not be worn for more than a few hours before it is replaced by a clean one. Used masks should always be disinfected before they are used again. Masks should be marked so that the same side will always be next to the face. If the mask does little else it diminishes a great deal of the hand to mouth infection. If the patients are in a ward of a hospital, screens or sheets should separate the beds.

Immunization of Contacts—We have considerable evidence to show that one attack of influenza confers immunity against subsequent attacks. Sahli¹¹ states that all the testimony speaks in favor of the protection of immunity by an attack of influenza. The relapse of influenza patients is a further convincing proof of the influence of immunization, as it demonstrates that the active virus was still present in the body before the relapse, and that it had been kept under control by antibodies for a time, but had finally escaped from this control.

Scoccia¹² states that epidemic influenza swept down on the Spezia hospital during the months of May and June and that every one of the eighty nurses and attendants contracted the disease. Late in September there was another epidemic more severe than ever, but it spared completely all nurses—not one was affected.

Falcioni¹³ states that a certain orphan asylum of Rome escaped influenza until January, 1919, when one hundred of the one hundred twenty inmates developed the disease within three or four days. Of the twenty who showed no symptoms of it, sixteen had recently been orphaned by death of their parents from influenza and two others had had the disease in another asylum a few months before. Of the entire one hundred twenty there were two who seemed to possess a natural immunity.

There have been three waves of the epidemic in Rome and each time it seemed to spare those who had the disease before.

Valasco¹⁴ states that he is certain that influenza confers immunity because those who contracted the disease when it appeared in the spring escaped it when the epidemic flared up again in the fall.

In the second epidemic of influenza at Mitchellville, Iowa¹⁵, Industrial School, the outstanding feature of the epidemic was the fact that those who had recovered from influenza in the first epidemic did not develop the disease in the second epidemic, although all were exposed to infection.

No immunity gives absolute protection. There is always that relation between immunity and dosage and virulence of the organism.

McQuire and Redden¹⁶, Ross and Hund¹⁷,

11. Correspondenz-Blatt für Schweizer Aerzte, Basel: Vol. xlix, p. 193.

12. Policlinic, Rome: Vol. xxv, p. 1249.

13. Policlinico, Rome: Vol. xxvi, p. 133.

14. R. Velasco: Medicina Ibera, Madrid, Vol. v, p. 128.

15. J. H. Hamilton and A. H. Leonard: J. A. M. A. Vol. lxxii, p. 854.

16. McQuire and Redden: Amer. Jour. of Public Health, Vol. viii, p. 741.

17. C. W. Ross and E. J. Hund: J. A. M. A., Vol. lxxii, p. 840.

4. G. H. Weaver: J. A. M. A., Vol. lxxi, p. 1405.

5. G. H. Weaver: Jour. Infectious Diseases, Vol. xxiv, p. 218.

6. J. A. Capps: J. A. M. A., Vol. lxx, p. 910.

7. Progress Medica: Vol. xxxiii, p. 175.

8. Bulletin de l'Académie de Médecine: Vol. lxxx, p. 348.

9. B. C. Doust and A. B. Lyon: J. A. M. A., Vol. lxxi, p. 1216.

10. D. A. Haller and R. C. Colwell: J. A. M. A., Vol. lxxi, p. 1213.

MacLachlan and Fetter¹⁸, O'Malley and Hartman¹⁹, and Liebmann²⁰, all report favorable results in the use of serum or blood from convalescent patients in the treatment of severe influenza or influenza pneumonia. Convalescent patient's serum or blood has not been used for prophylactic purposes. It probably would confer passive immunity of short duration. All this evidence tends to indicate that once we have established the etiology of influenza and have some accurate knowledge of the way in which it produces injury we will be able to have some specific prophylactic measure of value.

A considerable number of vaccines have been used in connection with influenza. Leary's vaccine²¹ was the first influenza vaccine to gain large usage during the present epidemic. It is composed entirely of influenza bacilli. At first it seemed to be of definite prophylactic value, but later it seemed to give but little, if any, protection.

Park²² also prepared an influenza bacillus vaccine. He was of the opinion that the vaccine was of value.

Ely²³ and others, believing that hemolytic streptococci were the etiological factor of influenza prepared a vaccine with this organism and used it. He reported that the vaccine prevented the disease in many of his personnel and modified its course favorably in others.

Rosenow²⁴ prepared a vaccine composed of pneumococci Type I, 10 per cent; Type II, 14 per cent; Type III, 6 per cent; Group IV, an allied green producing diplostreptococci, 30 per cent; hemolytic streptococci, 20 per cent; staphylococcus aureus, 10 per cent; and influenza bacilli, 10 per cent. He reports favorable prophylactic results in the administration of this vaccine.

Tonney²⁵ prepared a vaccine very similar to Rosenow's vaccine for use in the Chicago Department of Health. It was used very widely. As yet no definite conclusion has been drawn from the use of this vaccine.

McCoy, Murray and Teeter²⁶ using Tonney's vaccine vaccinated three hundred ninety unselected persons in a state hospital where no cases of influenza had developed up to the time of vac-

cination. As a control he had 390 unvaccinated persons. All of those persons were under forty-one years of age. The vaccination was completed November 15. The institution was free from influenza until November 26, when cases began to appear. One hundred nineteen cases of influenza developed among the 390 vaccinated and 103 among the 390 unvaccinated. Twenty-three of the vaccinated developed pneumonia, while only seventeen of the unvaccinated developed pneumonia. There were ten deaths among the vaccinated and seven deaths among the unvaccinated. They conclude from this evidence that this vaccine offered no protection.

Minaker and Irvine²⁷ used a vaccine comprised of B. influenzae, five billion; pneumococci type I, three billion; pneumococci type II, three billion; pneumococci type III, one billion; streptococcus hemolyticus, one hundred million. One and seven tenths c.c. of this vaccine was administered in three graduated doses. They report a definite protection was offered for those who used the vaccine.

Colonel Vaughn²⁸ states "We have tried with the greatest thoroughness the vaccines for influenza. We have used influenza vaccine in great quantities. All they can make in the army laboratory we have used, all that Dr. McCoy could spare and also have used that which Dr. Park has furnished us from the New York laboratory, and I do not hesitate to state that it has not done one bit of good."

The use of the pneumococcus vaccine described by Cecil and Austin²⁹, together with the use of the lypo-pneumococcus vaccine, described by Fennel³⁰ seems to indicate that these vaccines give definite protection against some of the complications of influenza, namely pneumonia due to pneumococcus types I, II and III. We have no reason, however, to expect that they would be of any protective value against influenza.

Until we have some definite knowledge of the etiological factor of influenza, any vaccine should be used, except for experimental purposes, only as a drowning man grasps at a straw.

Observation of Contacts—It is desirable if we expect to control influenza that all persons who have come in contact with patients suffering from influenza be kept under observation during the period of incubation, in order that they may be

18. MacLachlan and Fetter: J. A. M. A., Vol. lxxi, p. 2053.

19. J. J. O'Malley and F. W. Hartman: J. A. M. A., Vol. lxxii, p. 34.

20. Liebmann: Correspondenz-Blatt für Schweizer Aerzte, Basel, Vol. xlviii, p. 1393.

21. Leary.

22. New York Medical Jour.: Vol. cviii, p. 621.

23. C. F. Ely, et. al.: J. A. M. A., Vol. lxxii, p. 24.

24. E. C. Rosenow: J. A. M. A., Vol. lxxii, p. 31.

25. Tonney.

26. G. W. McCoy, V. B. Murray, A. L. Teeter: J. A. M. A., Vol. lxxi, p. 1997.

27. A. J. Minaker and R. S. Irvine: J. A. M. A., Vol. lxxii, p. 837.

28. Meeting of the Amer. Pub. Health Ass'n, Chicago, Dec. 8-11, 1918.

29. R. L. Cecil and J. H. Austin: Jour. Exper. Med., Vol. xxviii, p. 19.

30. Fennel.

promptly isolated the moment the first symptom is manifested.

Tracing Source of Infection—The source of infection can always be traced if sufficient inquiry is made, providing, of course, the patient knows the persons with whom he has been in contact. By tracing the source of infection it might be possible to determine carriers who could not be recognized by any other means.

General Sanitary Measures—The public should be educated both as to the dangers of influenza and the methods of protection against the disease. Each person in the community must be made to realize that if he has the disease, no matter whether it is a mild or virulent form, he is the focus from which infective material can be disseminated and that if he does not use utmost care he may infect some one, thereby being just as much responsible for that person's illness or death as if he had by physical force injured or killed him.

Overcrowding should be prevented. Hospitals should be established for the proper treatment of cases. It is essential in hospitals to remove the danger of cross infection. In hospitals a greater number of cases can be cared for by a limited personnel than when they are treated in their own homes. Every community which has an epidemic of influenza or is threatened with an epidemic, should have plans made for the emergency treatment of patients in hospitals.

The question of closing schools and public meeting places is a question that has been decided in various manners in various communities. When schools can be under careful and intelligent medical supervision, it is probably better to keep the schools open. In this way contact is supervised and cases may be recognized and isolated with greater ease and efficiency than when the schools are closed. The Illinois State Influenza Commission³¹ states "It is by no means manifest that the closing of schools and the dismissal of children into the communities had any effect in checking the spread of the disease. On the other hand, medical inspection doubtless brought to light thousands of cases which otherwise would have received belated medical attention, if any at all, while the first experience with school inspection and with school nurses incidental to the epidemic has convinced scores of Illinois communities of the wisdom of making school supervision a permanent matter."

The closing of public meeting places must be considered from two points of view: *First*, the danger of disseminating infectious material. It

is possible to conduct public meetings without great danger, provided overcrowding is avoided, and that individuals who are suffering from the disease or who are coughing or sneezing be excluded from the meeting. *Second*, the value of public meetings in educating the public and in keeping up public morals must not be underestimated.

Laws—Every community, either state or local should have suitable laws concerning infectious diseases. These laws should require reporting of all infectious diseases, isolation of all patients suffering from a communicable disease, laws against spitting, etc. State and local boards of health should be given the authority to make such rules and regulations as are required from time to time to protect the public. One of the chief objections to rigid state wide rules and regulations concerning quarantine, etc., is that it effects communities in which the disease does not exist, and therefore works the same hardship upon these communities that it works upon communities in which the disease is prevalent.

Personal Hygiene—This is important and essential. Correct living, normal and temperate living, generous diet of both food and water, prevention of constipation, rest and sleep, correction of mechanical defects of breathing, prevention or treatment of other respiratory abnormalities and avoidance of contact are all extremely important.

If we expect to control influenza we must not depend upon any single mechanism of defense, but must exert every intelligent effort within our powers.

THE RELATION OF INFLUENZA TO TUBERCULOSIS*

JOHN H. PECK, M.D., Des Moines

A number of articles have appeared advising us that influenza lowers one's bodily resistance and that tuberculosis frequently results from such infection. This also seems to be the general impression among physicians. I have recently read a leaflet published by the National Tuberculosis Association entitled: "Beware Tuberculosis after Influenza." Let us discuss frankly in the light of our present knowledge whether or not the danger is as great as we have been lead to believe. More than seven months have elapsed since the virulent form of influenza appeared in our state, and it would seem that sufficient data should be at hand from which to make reasonable deductions and form reasonably definite conclusions.

*Presented to the Sixty-Eighth Annual Session, Iowa State Medical Society, May 7, 8, 9, 1919, Des Moines.

As you have learned from Major Edgerly, the epidemic struck Camp Dodge during the latter part of September. Within about six weeks approximately eleven thousand cases were diagnosed influenza at the base hospital. At the beginning of the epidemic there were 130 patients in the tuberculosis wards; about 95 per cent of these patients went to the general mess, hence all were exposed to the infection. Eighty-five or ninety of them had tubercle bacilli in their sputum. We have here then, an ideal situation for studying the effect of influenza on the tuberculous and suspected tuberculous patients. The facts were, that twenty-five, or less than 20 per cent developed influenza, all of which cases were comparatively mild. Not one of these men developed pneumonia and, of course, there was no mortality. You will wish to know then the effect of influenza on the clinically non-tuberculous.*

There was no noticeable increase in the number of tuberculous patients admitted to the hospital or developing in the subsequent months. On the contrary, there was a gradual decrease in the admission of tuberculous cases to the wards. It may be claimed, however, that we were dealing with a body of picked men and that all had had a special examination for tuberculosis on reporting at the camp, rejecting all who showed signs of either active tuberculosis or extensive fibrosis. The principal point for emphasis is, that the incidence of tuberculosis developing in the camp after the influenza epidemic was materially less than had been our observation during the previous months.

There is reason to believe that the effect on the civilian population has been identical with the experience in a military camp quoted above. The mortality statistics in the office of the Iowa State Board of Health have been studied with the following result—taking the twenty-two largest counties of the state, we have compared the number of deaths from tuberculosis in the first two months of 1918 and 1919. Quoting these figures we find reported in

January, 1918, deaths.....	74
January, 1919, deaths.....	45
February, 1918, deaths.....	48
February, 1919, deaths.....	34

or, a decrease in January, 1919 over January, 1918 of 39.2 per cent and a decrease in February, 1919 over February, 1918 of 29.2 per cent.

Again, the superintendent of our state tuberculosis sanatorium advises me that among his 300 patients and employes, seventy-five cases of influenza developed. Most of these seventy-five

individuals were tuberculous, about one-half of them being active, the other one-half being quiescent. The latter class seemed to stand the disease better and recovered, usually without much, if any, effect. The active cases had exacerbation of their tuberculosis in 85 per cent. Eight deaths occurred from broncho-pneumonic complications, but none among employees.

Hawes reports that the testimony obtained from the superintendents of the Massachusetts State Tuberculosis Sanatoria on this point is, that an acute attack of influenza has had remarkably little effect on the already existing tuberculous process as far as increasing its spread or activity is concerned. Hawes' experience in his own work confirms these observations.

Homan states that only three of seventy-five patients in his sanatorium developed influenza during the recent epidemic. He attributes the low morbidity with these patients to two factors: first, tuberculous people usually show pneumococci, staphylococci, micrococcus-catarrhalis, etc., in their sputum, showing that a mild infection with these organisms is usually present in all patients, thus producing a degree of immunity which protects them to some extent against a frank invasion by any of these infections. Second, that all of his patients received influenza vaccine.

A resume of cases seen in private and clinical practice during the past four months may be summarized in the brief statement, that while a fair proportion of patients admitted a recent attack of influenza—and every respiratory infection short of a frank pneumonia has been called "the flu," it has appeared that in some the tuberculosis has been evidently aggravated, but in the large majority the intercurrent influenza has apparently not been the actual causative factor in the acute exacerbation of tuberculosis.

Naturally, the question arises—what will be the remote effect of influenza in its relation to acute exacerbations of pulmonary tuberculosis? From the evidence at hand it is my opinion that the lung infection will, as a rule, harmlessly subside, although in many cases complete recovery will be greatly delayed. Numerous cases of purulent bronchitis and localized empyema have been erroneously diagnosed tuberculosis. Repeated examinations of the sputum are especially important and usually clear the situation.

Another interesting phase of the relationship of influenza and tuberculosis to be noted in hospitals for advanced pulmonary cases is the great mortality among patients in advanced stages of the disease. It can easily be substantiated that

the final outcome has been hastened in this class of patients by referring to the reports of any tuberculosis sanatorium.

Just why such a severe respiratory infection should be so comparatively harmless to the ordinary case of tuberculosis can not be readily explained. A study of mortality statistics following the epidemic of 1890 gives us no tangible evidence beyond the simple fact that the incidence of tuberculosis was not increased. Neither does the experience of the surgeon general's office aid us in our researches. It has been found possible to close three or four of the U. S. Army General Hospitals which had been set aside for the care of tuberculous soldiers and, within a short time, so rapidly is the need declining, but two or three will be necessary. And we must bear in mind that it has been the policy of the surgeon general's office to refuse discharge and order transfer of all tuberculous soldiers to these special hospitals. This rule has recently been modified so that treatment is offered and advised, but is not compulsory.

One of our largest insurance companies, carrying a large proportion of industrial policies, strongly urges its policyholders to submit to lung examinations at intervals of three months after an attack of influenza so that the occurrence of pulmonary tuberculosis will thereby be recognized early, and prompt treatment instituted. The advice is good, and surely no physician would deprecate the wisdom of such procedure even if this rule applied to the entire population. It would be by such accumulated mass of evidence that more exact conclusions could properly be drawn.

It should not be accepted that the tuberculous may contract influenza with impunity, but rather that the danger has been exaggerated, both in medical literature and in the public press, the practical conclusion being that the tuberculous individual must avoid infection with influenza with the strictest care, keeping away from contacts, poorly ventilated rooms, etc., and regulate his mode of living according to modern hygienic rules.

Siomine (hexamethylenamin tetraiodid) is an ideal means of internal iodine medication. While possessing all of the pharmacologic value of potassium iodid, it is free from many of its objectionable features.

The dosage is accurate and easily controlled, because the drug is marketed in capsules only. For these reasons, when iodid effect is desired siomine should be given—as in tertiary syphilis, fibrous goiter, arteriosclerosis, locomotor ataxia, etc. The Howard-Holt Company, Cedar Rapids, will gladly give further details on siomine therapy.

THE SURGICAL COMPLICATIONS IN 1030 CASES OF INFLUENZA*

CHAS. J. ROWAN, M.D., F.A.C.S., Iowa City

The 1030 cases of influenza in which arose the surgical complications to be considered, occurred in the student body of the University of Iowa during the month of October, 1918. The barrack life of the Students Army Training Corps is responsible for so many cases among a student population of slightly over 3,000 and permitted an early and close observation of the cases.

On the third day of the epidemic the university hospital ceased admitting its regular patients and evacuated as many of its resident cases as could be discharged. This was done to make room for the very sick influenza cases which were expected to be numerous, and in a few days the hospital was filled with these. Within a week our normal hospital capacity was raised from 350 to over a thousand, by using outside buildings.

In considering the surgical complications of these cases we are struck by the fact that they are few in number and variety and not very serious. Empyema is the most important. This occurred only in the pneumonia cases, of which there were about 100, and which was the cause of death in each of the thirty-three fatal cases.

In the spring of 1918 when a very fatal form of streptococcus pneumonia and empyema was prevalent in the cantonments throughout the country, we had a few cases in the University Hospital, and our experience then led us to dread the development of empyema in this epidemic. However, the percentage of cases of empyema was lower and the mortality not nearly so great. We had nine empyemas, of which two were fatal. These nine patients all had pneumonia when the empyema developed. Five of them were in the active stage of pneumonia when this complication arose, and in four the pneumonia was subsiding when the empyema appeared. In eight the left side was involved, and in one the right. In two cases the fluid obtained at the first aspiration showed no bacteria, and in these cases an aspiration on the following day revealed the organism. All of the cases had leucocytosis, in contrast to the leucopenia which was present in the uncomplicated influenza patients. In five cases the pus contained only the pneumococcus, in one case the streptococcus, and in three, the pneumococcus and streptococcus. In these three cases the pneumococci were much more numerous than the streptococci, which were in short chains. In

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those cases where the type of pneumococcus was determined, it proved to be type four. Three of these nine patients developed double otitis media, and one of them also had scarlet fever. In two of the cases, a second aspiration of pus was done before drainage was instituted, (suggested by our experience of last spring) but in the others the pleural cavity was drained as soon as bacteria were demonstrated to be in the pus. In the first three cases, with local anesthesia, two rubber catheters were placed between the ribs, but in the others a rib was resected under gas and oxygen anesthesia. I do not consider ether anesthesia to be proper in these cases, but a well administered gas and oxygen anesthesia does not produce cyanosis or shock, and I consider it preferable to local anesthesia except in the most desperate cases.

Empyema was followed by death in two patients, in both of whom it appeared early in the course of the pneumonia, and death occurred while the pneumonia was still active. I believe that the low mortality in these patients as compared with the mortality of the cases last winter is due to the fact that the pneumococcus rather than the streptococcus was the predominating organism.

Appendicitis was not a common complication. Many of the patients had the gastrointestinal form of influenza, and in quite a number of these there was finally pain, tenderness, and rigidity localized in the right lower quadrant. This was marked enough in some cases to have led to the diagnosis of acute appendicitis and to have indicated operation in ordinary times, but we felt that it was extremely important to avoid unnecessary operations in these influenza patients, that the involvement of the appendix was only a part of the enteritis of influenza; that recovery would take place unless secondary infection of the appendix occurred, and that secondary infection would be shown by the development of leucocytosis. Two of the patients did develop leucocytosis, showing respectively 14,000 and 18,000 leucocytes. As soon as it appeared, appendectomy was done in each case under gas and oxygen anesthesia.

In the patient with 14,000 leucocytes, an acutely inflamed appendix with beginning gangrene of the mucous membrane was found. He developed a postoperative central pneumonia, with irregular fever and slight physical signs but a very definite area of consolidation as shown by the x-ray.

The patient with 18,000 leucocytes was found at operation to have a large amount of clear serous fluid free in the peritoneal cavity. The appendix seemed normal except for congestion,

which was also present in the intestines generally. A search failed to show diverticulitis or other cause for the pain and leucocytosis, except a slight diffuse thickening of the sigmoid. The appendix was removed and his recovery was prompt and complete. In this case I would account for the considerable amount of free fluid in the peritoneal cavity through the hyperaemia of the intestines due to the influenza enteritis, but this does not account for his leucocytosis and the appendix did not appear to be acutely inflamed. The slight thickening of the wall of the sigmoid leads me to think that he had an inflammatory infiltration of the wall at this point, secondary to the influenza inflammation, and that this sigmoiditis caused his leucocytosis.

Dr. L. W. Dean, head of the eye, ear, nose and throat department reports that during the epidemic his department had under observation thirty-seven patients with acute otitis media, of whom five developed mastoiditis requiring operation. In four of these mastoid cases the streptococcus was found, and in one the identification of the organism is not complete. There were fourteen cases of acute paranasal sinus disease, and twelve cases of acute laryngitis. In all these complications leucocytosis was present, except in one, who died from pneumonia without having had leucocytosis at any time. Dr. Dean reports that he noted two rather unusual conditions.

1. The marked tendency of orbital cellulitis in cases with infection of the anterior ethmoids; three cases among the fourteen with paranasal sinus disease having orbital cellulitis.

2. The laryngitis cases presented superficial ulcerations with infiltrated bases. In certain camps the same condition has been reported as caused by the pneumococcus independent of influenza.

Conclusion—In no case was influenza bacillus found, therefore it cannot be regarded as the cause of this epidemic. Complications are few and are probably due to a secondary infection. This is indicated by the fact that leucopenia is present in the uncomplicated cases, but leucocytosis develops almost invariably with the onset of complications.

Whatever the primary cause of the influenza may be the bacteria mostly concerned in the complications are pneumococci and streptococci.

Discussion

Dr. Max E. Witte, Clarinda—We have a form of insanity known as infection delirium. It is quite uncommon, we do not see it very often. Sometimes we have monthly admission of one case, sometimes months or years go by without a single case coming under our care at the hospital of which I have the pleasure and honor of being in charge. The forms

of infection are most commonly those following pneumonia, typhoid fever, erysipelas, some diphtheria, and scarlet fever. But, as stated, it is a true poisoning of the cortical neurons by the particular toxin of the infecting germ. Now, in connection with the influenza, after the subsidence of this epidemic wave, say within six weeks after the first week in December, I saw among the patients coming under our care or in consultation with practitioners outside something like thirty to thirty-five cases of true infection delirium. These cases exhibit an intense mental confusion with excessive hyperactivity of the psychomotor sphere, there is agitation and restlessness, incoherence and disconnection, noisy and boisterous, and over all a most distressed coloring of the emotions with much weakening, incessant movement and no sleep. These people, with apparently an appalling outlook as it were, after a course of a few weeks in uncomplicated cases invariably recover. In the cases referred to, there was gradual subsidence of all these symptoms, and the history of the trouble revealed that it followed immediately up to within a month, usually within ten days or two weeks, after apparent cessation of the influenza. A few complicated cases occurred, where there was an unresolved pneumonia and an inflaming up of perhaps an old tubercular process. But it is very interesting to know that this epidemic influenza brought on more cases of infection psychoses, of actual insanity than had come under my observation during all my previous experience.

Dr. C. F. Wahrer, Fort Madison—I have just a few words to say in regard to influenza. I cannot stick close to the various phases of the subject as presented by the different essayists because it would take me too long. But I want to ask, in deference to all that you have heard here today and in deference to all that you have read, do you know very much about influenza now? Well, I thought so—I don't either, but I want to talk a little about the mortality. The mortality in some localities has been frightful. I cannot tell you much how to prevent mortality in this disease because I do not know how, but I do know a few things as regards the old type of influenza. Your reading has told you and the essayists have told you some of the things that we must consider. In addition to the symptomatology and pathology of the old influenza or grip, there have been implanted a number of factors which, in addition to the old, now constitute the so-called Spanish influenza, and perhaps we have a number of cocci or flora and fauna added that themselves are dangerous no matter what country they come from or even if they travel alone—the bacillus pneumoniae, and especially the streptococci, and among them the streptococcus hemolyticus, the one that tears your blood cells to pieces. You have with you at that particular time a billion or two of these hemolytic organisms which, about every fifteen minutes, destroy a billion of your blood cells, and that makes you look very blue. I will tell you what contributes to the mortality in influenza: Many of us

listen to the importunities of the patients, who say, "Deliver me from this hellish pain," and the doctor falls for it, he looks kindly upon the coal-tar products, which he should not do because the coal-tar products are themselves hemolytics. If you do not believe it and dare to do it, take 25 or 30 grains of one of the coal-tar products and in thirty minutes look into a mirror and you will find that you are mighty blue. When you have added the hemolytic influence of a coal-tar product to the hemolysis occasioned by the presence of the streptococcus hemolyticus, you have much mortality. In the treatment of influenza my advice would be this: Let the patient endure the hell-racking pains of influenza for a few hours, for this is better than to dwell thenceforth forever in blissful anesthesia in the halls of Nirvana. We are told by some one that we should use sera. I did not know it was done, I thought the usual recommendation was to use the prophylactic vaccines. We do not use sera. You have also been told by some one that in every case you should make a spinal puncture. For God's sake don't do it, for there is but one doctor out of a hundred that can do it, and I hope the other ninety-nine will not try it for the sake of the patient. It is no use any how unless you have a laboratory at command in order to know how to dispose of the stuff that you get out, and then know what to do after that. Spinal puncture can never be practiced as a routine procedure, except under favorable conditions. Without a sense of egotism however I am sure I could say much that would be useful in the treatment of this protean plague, that would lessen the usual mortality, so could all of you were it not for the difference that damns us all in the presence of academic authority and nihilistic therapeutics that stares us in the face by the writings of those who do not fear to rush into print with immature thought.

Capt. F. A. Wells, Base Hospital, Camp Dodge, Iowa—During the influenza epidemic I was stationed at Camp Logan, Texas, where I had charge of one of the influenza wards in the base hospital. What has been said is true of the disease as a whole, but it varied in virulence in different camps. The tent camps had the disease in a milder form or if not in a milder form at least they had fewer deaths from the fact that it was not spread so badly in the tent as in the barrack. We had a little over one hundred deaths with about sixteen thousand men in the camp, or about two-thirds of one per cent mortality. The influenza in itself did not cause the death of a single man so far as came under our observation, but it was the complications that caused the high mortality rate. Sometimes the complications seemed to develop almost at the same time as the disease, at other times three or four days later. Many cases would have at the beginning a temperature of 103-5°, and in twenty-four to forty-eight hours the temperature would be nearly down to normal. Those cases we could almost certainly count on sending out in a few days. We were so rushed we could not keep them in as long as we wanted to. The deaths from

pneumonia were to a large extent due to the pneumococcus. We were not cursed with the streptococcus hemolyticus, as you were at Camp Dodge. As to the treatment, we put them to bed, and that is the standard treatment. We used salicylates, especially acetylsalicylic acid in five to ten grain doses, three to five hours apart. Sometimes we had to use morphin, but not often, and if necessary a mild expectorant. That was largely our treatment unless they contracted pneumonia. I was not at that time in charge of a pneumonia ward, but was told that their treatment was symptomatic, tincture of digitalis being the commonest drug they gave when the pulse became too fast. Type 1 anti-pneumococcic serum was used with considerable success when the type 1 pneumococcus was the causative factor. The cause of this epidemic of influenza and why it attacked principally the young and apparently strong persons are matters of dispute. As yet no serum of much value as a prophylactic has been discovered. There is a large and fertile field for laboratory investigation of the prophylaxis and treatment of influenza.

Dr. Chas. H. Magee, Burlington—Just a word in regard to a surgical complication not named by Dr. Rowan. Up to about six weeks ago I had reason to believe that a case I had was unique, but since that time some one, I do not remember his name, has published eight cases in the Journal of the A. M. A. I will give the history of the case in a few words: A young man, about twenty-four, had all the symptoms of appendicitis—temperature, pain, tenderness, vomiting, and swelling over McBurney's point. I was certain the condition was appendicitis and the man who had the case in charge called me in consultation was equally certain it was appendicitis. Upon making incision we came down on a ruptured rectus muscle with about four ounces of fluid blood in the tissues. I would like to ask Dr. Rowan if he has encountered any cases like that.

Dr. J. F. Herrick, Ottumwa—So far as the epidemic of influenza was concerned, there was very little difference between what we saw in the A. E. F. and what was reported in the camps in America, except this: That it seemed to me that our death rate was considerably lower. We had an epidemic of influenza in June last year that was quite extensive, but not severe. We had a few cases of pneumonia, but no deaths in our hospital. Then during July we had practically no influenza. But beginning early in August and running through August and September the number of cases was very great, and the number of cases of pneumonia following it was, I should judge, about 20 per cent of the influenza cases. The death rate of our pneumonias was a very limited fraction over 20 per cent of the pneumonias. Our pneumonia cases have been well described here today, except that it seemed to me too much stress was put on the late development of the consolidation. Very careful observations were made and repeated examinations carried out, and it seemed to us quite evident that the lobules of the lungs were filled up

one by one; the first one could be detected very soon after the onset of the pneumonia. In a general way our plan was to consider any case of influenza that continued a temperature of 103° past the third day, as in all probability pneumonia, and I do not think we were mistaken in a half dozen cases. So that any case keeping a temperature of 103-4° more than three days, nearly always proved to be pneumonia. On the fourth day almost universally these wedges could be found, and they were typical wedges. On post-mortem the base of the wedge was found to be against the surface of the lung with the point of the wedge at the hilum of the lung. When I say wedge, a cone would describe it better, because the mass was of irregular outline coming to a point at the hilum of the lung. As the disease progressed these wedges increased in number, one here and another there, until eventually the entire lung was involved. As to the infecting organism, repeated smears from the nose and throat and from the sputum showed in about 80 per cent of the cases a diplococcus. At first the organism was believed to be the diplococcus pneumoniae, and then it was concluded that it was the diplococcus of Pfeiffer. However, the laboratory men differed and were unable to agree. A peculiar thing was that in our center there were nearly 10,000 beds divided in four sections. Two of these sections found this diplococcus almost universal, the other two hospitals reported it much less frequently. The blood was always sterile, no growth could be obtained. The lungs, in a great majority of cases of post-mortem, were sterile. When any organism was found it was usually the streptococcus hemolyticus, and there was a difference of opinion as to what was really the cause of the disease. The general impression seemed to be that probably the cause was this diplococcus whatever it was, and that it was of such a nature as to produce not an endogenous but an exogenous toxin, such as are produced by germs which do not invade the blood or lung tissue, but the poisons of which were absorbed as in diphtheria. If that be true, it is possible to explain the entire course of the symptoms as due to the toxins and not to the invasion of the germ. There was a degeneration of the blood in these cases when they went on to severe pneumonia. We had the leukanemia reported here, as low as 3,000 in some cases, and in no case of pneumonia did we have over 8,000 to begin with, although in some cases later the leucocytes went up 10,000 or 11,000. Of course, purulent pleurisy always produced a leucocytosis. Referring to what Dr. Magee has said as to a hemorrhagic condition in the muscles, in my own observation on post-mortem I saw a large number of cases of hemorrhage into the recti muscles in cases of death from pneumonia during that epidemic. In a discussion of the subject with the pathologists and other physicians no conclusion was arrived at as to why such a condition prevailed. The condition was common over there, why I do not know. It struck me as possibly being explained by a hemotoxin, as mentioned above. The hemorrhage was very much like that which I have

seen in cases of toxic diphtheria, where you have a destruction of the walls of the blood-vessels and hemorrhage into the skin.

Dr. M. F. Stults, Wiota—I would like to say a few words in regard to the use of vaccines. Living in a small town, I am engaged in a country practice. During the winter I had about 150 cases of influenza to treat, and I immunized perhaps about 300. The first wave of influenza came on in November. I have been using vaccines of different kinds for about eight years. The first night after the epidemic started fifteen persons came in and wanted to be immunized. I did not tell them that the use of vaccine would positively prevent the development of influenza, but stated that I believed it would tend to immunization, and that if it did not keep the disease from attacking them it would at least make the cases lighter. Among the cases that I treated in November and December I had none that had been immunized with the exception of myself, and I had used it only once because I ran out of vaccine and had to go without it for two days. At 11 o'clock one night, while getting ready to use the second dose upon myself, I began to chill. I used mask and gargles and kept to my work, using vaccine twice daily. My temperature was about $99\frac{2}{5}^{\circ}$ morning and evening. After recovery I was quite weak for about two weeks. In the first epidemic during November and December I had no pneumonia except in those cases in which the bronchial complication existed at the time I first saw the patient. I had no deaths, although that fact might be and probably was simply incidental—I might have had the same result if vaccines had not been used at all. In January and during the first part of February I had cases that I did not dignify with the name influenza, but called the condition "grippe." These patients had fever for about thirtysix to forty-eight hours. Some of these people had been immunized three times. Of course, before a scientific body a limited report such as mine does not mean much, but in the first epidemic I treated two families where the wife and mother had refused the immunizing dose of vaccine, and to them I gave the vaccine every day for four days and one wore a mask moistened with chlorazaine solution. These mothers nursed the sick in the family, but did not come down with the disease. In the second epidemic, which commenced about the middle of February, I had a number of patients who had been immunized by myself. So if there is any virtue in the vaccines, and I believe there is, the virtue had run out. But as a rule these cases were milder than those which had not received the immunizing dose. We have those who decry the use of vaccines, saying that they do no good, and, of course, we are all more or less susceptible to public opinion and in the second epidemic I used the vaccine only once or twice in each case and in some not at all, but in my opinion the disease was milder in the second epidemic. I believe that we do not use the vaccines often enough. One thing that I have particularly noted in these cases is the extreme weakness, and this occurred not only in the cases im-

munized, but in those which had not received the vaccine.

Dr. V. A. Farrell, Mason City—In regard to the use of vaccines in influenza, during the past winter I had some experience with the sero-bacterins and want to mention some of our results. About the time the epidemic started we vaccinated something over 400 people for prophylactic purposes, and of those we had between twenty and thirty who developed the disease. Three cases developed pneumonia, but we had no deaths. We had between 80 and 90 cases of pneumonia that we treated with the sero-bacterin, with eleven deaths. Many of the cases so treated were very bad, they were cases that ordinarily we would consider we could get no result in at all, that we might as well give up. A number of these cases recovered. If you will give the sero-bacterins a trial and administer them in large doses, not the small doses of three-tenths of one c.c. that are sometimes advocated, but one or two or even two and one-half c.c., and repeat the dose every twelve to twenty-four hours, I am very sure that you will get many favorable reactions. In the cases we treated we know that we secured some results at least. During the coming winter we expect to continue the use of sero-bacterins for prophylactic purposes, and also because of the very good results obtained heretofore expect to use them in cases of influenza-pneumonia.

Dr. W. T. Peters, Burt—In the series of cases of influenza which I have had to take care of, one peculiar thing I have noticed is the disease always spreads among the adults, never among the children. I do recall a single instance among the families which have had influenza where the children were the first to contract the disease. This was especially true in the schools—it never spread there. When a child was taken sick in school there would be perhaps a dozen exposures of those close by, and not a single one contract the disease. But follow this child to the home and you will always find that some adult either has the disease or is just recovering from it. Another thing I noticed was that the children from three to five years old were the last in the family to develop the influenza. Many children at this age escape entirely. I recall four families who have had a recurrence of the disease in from four to six weeks, four being the shortest and six the longest period.

Dr. Edgerly—I do not think of anything of moment to add. We believe that the epidemic of a year ago was practically the same as the one we had last fall. Prof. MacCollon was working with us at the autopsy table and described these abscesses of the rectus, of which we had some three or four in the epidemic of a year ago, and there was but one in the fall epidemic. The rupture of the rectus muscle was supposed to be due to coughing and the effect of this effort on the weakened muscle. At our camp we had streptococcus infection in all departments of the hospital. On the train the other day I was talking with a doctor from a rural community in which

they had had several starting points of the epidemic of which they felt they knew the source. One starting point was the case of a traveling man, but in the group of cases which could be traced to him there were no deaths. The other case was that of a soldier coming in from an army camp, who, before he came down with the disease, attended a social affair where some of the teachers in the local schools were present. After being in the schoolroom for two or three days the teachers who had been exposed became ill, and from those school teachers they could trace the disease to the families of the community. And whereas there was no mortality in the cases which were traced to the other carriers, there were thirty deaths in the group that could be traced to the soldier from the army camp, proving quite conclusively our contention that while we have had the same disease, we have not had the same degree of virulence in all places.

Dr. Albert—I would like to say a word with reference to the use of vaccines. As a bacteriologist, I hope that it will be possible to find some bacterial product that will be found to be efficient for the prevention and cure of this disease. I regret to say, however, that I am not as yet very enthusiastic with reference to the use of vaccines. I think that some of my friends who rather looked to the state laboratory for a supply of material or data with reference to the value of vaccines, were rather disappointed. I may say that many of the reports such as we have heard this afternoon seem to be based on fairly good evidence, but I may say also that after the accumulation of a large amount of data which was collected at the time of the meeting of the American Public Health Association last December a committee of that association, on which I had the pleasure of serving, received all the reports available at that time. Of all the data available there was only one report from which definite conclusions could be drawn, and that was the report of Dr. McCoy of the Hygienic Laboratory of the U. S. Public Health Service. He used a mixed vaccine of the kind used practically everywhere—the country over. This vaccine was used on 400 persons, representing one-half of 800 inmates of a given institution before that institution was struck by the influenza epidemic. When the epidemic did occur it proved to be a reasonably severe one, similar to that found in many military camps. The difference between the incidence of the disease and the mortality was practically nothing. As a matter of fact both the incidence and the mortality was a little higher among those vaccinated. The difference was, however, so slight as to be negligible. All the other data was of a general nature and based principally on the fact that everywhere, quite regardless of the measures taken except where strict and definite measures were adopted as in West Union, where the curve was markedly flattened—everywhere there was a rather typical curve to the epidemic, which went up reaching the peak in about ten days and then went down almost as fast as it went up. In many places the

use of vaccines was started at or near the peak of the epidemic, which made it appear that the vaccine did a great deal of good in terminating the epidemic. We shall hope that further evidence will show that certain vaccines were of some value.

Dr. Hamilton—Concerning the conclusions that may or may not be drawn regarding the immunity conferred by the type of influenza, I wish to say that a lot of the people that are reported as having had influenza were simply relapses instead of new cases, and must be considered as relapses rather than as new cases of influenza. Then, too, we must realize that except when the disease is occurring in epidemic form it is very difficult to make a clinical diagnosis, and we cannot be too certain about our diagnosis except when the disease is appearing in epidemic form.

Dr. Rowan—In answer to Dr. Magee's question I would say that I have seen no cases of ruptured abdominal muscle in connection with influenza. In this paper I have not attempted to discuss the surgical complications of influenza in general, but have limited my considerations to the surgical complications that arose in this particular series of 1030 cases. Apart from this series of cases I have seen other complications, such as gangrene of the leg in two cases, a synovitis of the knee, and acute cervical lymphadenitis.

MILITARY SURGEONS ELECT OFFICERS

At the annual meeting of the Association of Military Surgeons of the United States, which was held in St. Louis, October 13 to 15, under the presidency of Col. Henry P. Birmingham, M. C., U. S. Army, New Orleans was selected as the place of meeting for next year, the time set being three days immediately preceding the meeting of the American Medical Association. The following officers were elected: President, Lieut.-Col. Joseph A. Hall, M. C., O. N. G., Cincinnati; vice-presidents, Assist. Surg.-Gen. John W. Kerr, U. S. P. H. S., Washington, D. C., Capt. Frank L. Pleadwell, M. C. U. S. Navy, Washington, D. C. and Brig.-Gen. Francis A. Winter, M. C. U. S. Army, Washington, D. C., and secretary-treasurer, Col. James Robb Church, M. C., U. S. Army, Washington, D. C., reelected.—(Journal A. M. A.)

KNIGHTHOODS FOR MEDICAL MEN

Among the latest to receive the accolade are six medical men. Professor G. Sims Woodhead, the well known professor of pathology at Cambridge; Professor F. W. Mott, the leading clinical neurologist of the English school, whose admirable work in relation to shell-shock has borne ample fruit; Mr. D'Arcy Power, surgeon to St. Bartholomew's Hospital; Mr. Charters Symonds, vice-president of the Royal College of Surgeons of England; Mr. Cuthbert Wallace, and Mr. W. T. Lister.—Medical Record.

The Journal of the Iowa State Medical Society

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In an interesting editorial appearing in the September 20th Journal of the American Medical Association attention is drawn to the greater immunity of city bred young men to infectious diseases than young men from the country. The opportunity for observation was afforded in the great camps of soldiers drawn from the city and from the country. We had observed the same fact in a small way when serving as physician at the state college covering a period of twenty years, from 1873 to 1893. In those days the percentage of young men and young women from the farms was large, but there were a sufficient number of students from the cities to enable us to form rather definite conclusions.

The college year, for certain reasons, began in the latter part of February when the weather conditions were such as to keep students in doors. We observed two facts: one, that a much larger proportion of students from the country had escaped the infectious diseases of childhood and were very susceptible on exposure and the disease was more severe and complications more frequent—pulmonary in measles and nephritic in scarlatina. We studied the subject carefully then when conditions were left to nature, when people had but little regard for prophylactic measures; and when we often fell into disgrace on insisting on conditions which are now accepted without question. It then appeared that students from cities who had been frequently exposed to infection and had escaped, acquired a degree of immunity which frequently prevented contracting

the disease on exposure which almost invariably developed the disease in the country boy, and if he did contract the disease it was much milder and rarely became complicated.

We are quite prepared to accept figures given by Love and Davenport that "at least twenty-five per cent more of cases of influenza, ten per cent more pneumonia, ten per cent more deaths and thirty per cent higher admission for all sickness than the prevailing urban camps." The army experts conclude, "therefore, that in the influenza epidemic, rural troops suffered more than urban troops."

THE LICE PROBLEM

The problem of freeing the soldiers from lice divides itself into two distinct phases:

1. The laundering and bathing procedures for ridding the clothes and the men of lice or eggs already present. These were possible only behind the lines.

2. The use of sachet powders and impregnation of clothes and underwear with substances which would kill, or prevent the growth or even the presence of lice in the clothing. Since in many cases the soldiers were on duty continuously without change of clothing for three weeks or more, this phase of the problem assumed particular importance.

After experimenting with a number of pediculicide substances, the substances which were found to be best suited to the purpose were the dibrommetacresol which lasted ten days and the dichlormonobrommetacresol which lasted thirteen days; and these compounds seemed to fulfil the requisites of the problem so far as a laboratory trial could demonstrate. All of which proved to be of little practical value.

TEST OF AN ORDINANCE FOR THE CONTROL OF VENEREAL DISEASES

A recent test of an ordinance for the control of venereal diseases similar to the one enacted by fifty-one Indiana cities, which requires physicians to report all venereal diseases for quarantine, withstood all attacks in the Nebraska Supreme Court. The Nebraska case was based upon the right of the health officer to detain a woman known to be infected with venereal disease. The Supreme Court, in dismissing a habeas corpus proceeding, asserted that the health officer was justified in holding the woman so long as there existed any danger of the communication of her infection to others. The Indiana ordinance has been sustained in Indianapolis and Terre Haute City courts, but has not been appealed to the higher courts of the state. Therefore,

the decision given in the test trial of the Nebraska statute, which is practically identical with that adopted by Indiana municipalities, lends backing to the Indiana ordinance.—The Journal of the Indiana State Medical Association.

NATIONAL ANAESTHESIA RESEARCH SOCIETY

Announcement is made of the launching of the National Anaesthesia Research Society, with the avowed purpose of collecting data and prosecuting original research in this field of medicine. The objects of the society as set forth in the constitution are:

"To promote the science of anaesthesia and to enable its members, after first having obtained the approval of the society, to submit without prejudice to the dental and medical professions, any views, findings, or accomplishments they have attained; to obtain from all available sources such information as is now extant concerning any material, liquid or gas, known to have anaesthetic properties; to arrange, in cooperation with dental, medical and anaesthesia associations for the preparation and delivery of suitable interesting and educational papers on the general subject, or relative to some particular anaesthetic; to use influence to prevent the publication or circulation of any false or unauthentic statements concerning any and all conditions, symptoms, or phenomena prevailing during or after anaesthesia by any anaesthetic, and to prepare and distribute on request, forms on which such information can be tabulated with uniformity; to distribute by pamphlet or publication, as its funds may permit, and its governing powers authorize, such reliable data as it may collect or obtain through its members or others interested in the subject of anaesthesia, for use by the medical and dental professions; to co-operate with state authorities and other bodies in the preparation of suitable legislation to safeguard those to whom anaesthetics are administered as well as those called upon to administer them; to use its influence in every way and to give its aid toward the advancement of the science of anaesthesia."

The research committee which will have supervision of original work and the editing of material designed for the profession and professional press, is headed by F. H. McMechan, A.M., M.D., of Avon Lake, Ohio, editor of the Quarterly Supplement of the American Year Book of Anaesthesia and Analgesia. W. I. Jones, D.D.S., president of the Interstate Anaesthetists' Association, will have an active part in the committee's work. Representative anaesthetists of the country, who have distinguished themselves by research and progress in their field, are being invited to join the committee.

The society has been endowed with limited funds which will permit it to demonstrate that there is a field of usefulness for it.

WOMAN'S CLINIC AT THE JOHNS HOPKINS HOSPITAL

Dr. Winford S. Smith, Baltimore, has announced that work will be begun in the spring on a woman's clinic at the Johns Hopkins Hospital, which will offer facilities for study and observation in obstetrics and gynecology. The clinic will have a large staff in charge of Dr. J. Whitridge Williams. A one-story and a two-story building connected by a corridor will be remodeled into a large five-story structure. The work is to cost approximately \$400,000. The greatest expansion will be in the obstetric department, in which in addition to accommodations for 150 patients, extensive facilities for research and experiment, with laboratory equipment, will be provided. A new nursery will be equipped. These plans also contemplate a building which, if constructed at present prices, would cost at least \$1,500,000, and would be seven stories high. Such a building would enable all departments of the dispensary to be in operation simultaneously.—(Journal A. M. A.)

HONORARY DEGREE FOR LIEUTENANT COMMANDER BAINBRIDGE

At the annual commencement exercises of Coe College, Cedar Rapids, Ia., held on June 11, the degree of LL.D. was conferred upon Lieutenant Commander William Seaman Bainbridge, Medical Corps, United States Naval Reserve Force. This was given in absencio, Doctor Bainbridge not being able to be present on account of his official duties in the navy.—(New York Medical Journal.)

ANNUAL MEETING OF RAILWAY SURGEONS

At the annual meeting of the Association of Railway Chief Surgeons, held in New York the following officers were elected: Dr. C. W. Hopkins of the Chicago & Northwestern Railway, president; Dr. Duncan Evans of the St. Louis, Chattanooga & Tennessee Railway, vice-president, and Dr. Louis J. Mitchell, secretary and treasurer. The surgeons visited the Army Base Hospital No. 4 on Staten Island.—(New York Medical Journal.)

NATIONAL COLORED MEDICAL SOCIETY MEETING

The twenty-first annual meeting of the National Medical Association, an organization of negro physicians, dentists and pharmacists, was held in Newark, N. J., August 26 to 29. Atlanta, Ga., was selected as the next place of meeting and Dr. John P. Turner, Philadelphia, was elected president.—(Journal of American Medical Association.)

DEATH OF PROFESSOR AUGUSTUS GEORGE VERNON HARCOURT

This distinguished chemist died on August 16, 1919, in his eighty-fifth year. He was a pioneer of physical chemistry but remained to the end of his life a skeptic toward the new theories of solution and ionization. His discoveries were numerous and he was president of the Chemical Society of Great Britain in 1895.—(Medical Record)

DR. CRILE ENDOWS CHAIR AT WESTERN RESERVE

It is reported that Dr. George W. Crile has given \$100,000 for the endowment of a chair of surgery in Western Reserve University Medical School.—(Journal A. M. A.)

SOCIETY PROCEEDINGS

Buchanan County Medical Society

The annual meeting of the Buchanan County Medical Society was held in the office of the public health nurses Friday afternoon, December 19. Eight members were present—six from this city and two from the Hospital. Miss Lena Drake gave a report of the public health nurses work done during the last few months, since the work was inaugurated here, and the physicians were pleased with the showing that had been made. The society elected officers as follows: President, Dr. W. P. Crumbacker; vice-president, Dr. H. A. Lindsay; secretary and treasurer, Dr. J. C. Shellito; censors, Drs. H. A. Lindsay and B. B. Sells; delegate to state convention, Dr. A. G. Shellito; alternate delegate, Dr. F. F. Agnew.

Cass County Medical Society

The annual meeting of the Cass County Medical Society was held in the parlor of the Masonic Temple December 31. The meeting was called to order at 1:30 o'clock.

The following was the program: Discussion of a paper on Anesthetics, read by Dr. James Maynard of Adair at the last meeting. Contagious Diseases treated at Base Hospital No. 120 in France, Dr. R. M. Cullison, Atlantic; Spina-Bifida—Report of Case, Dr. Graham, Atlantic. Election of officers and payment of annual dues.

Clay County Medical Society

The annual meeting of the Clay County Medical Association was held in Spencer on Monday morning, December 29, at ten o'clock at the Commercial Club rooms. The chief business of the meeting was the election of officers for the ensuing year. At this time Dr. J. M. Sokol was elected president to succeed Dr. J. H. Bruce of Dickens, Dr. E. E. Munger, vice-president and Dr. T. H. Johnston was re-elected secretary and treasurer. Delegates to the State Med-

ical meeting to be held in Des Moines in May, 1920, were chosen with the following results: Dr. C. C. Collester, delegate, and Dr. Bruce, alternate.

The following censors were chosen: Dr. C. C. Winter of Greenville for a term of three years, Dr. C. C. Collester of Spencer, for a term of two years, and Dr. Sokol of Spencer for a term of one year.

Decatur County Medical Society

The annual meeting of the Decatur County Medical Society, was held in this city Thursday evening December 18, Dr. B. L. Eiker presiding and Dr. Fred A. Bowman as secretary, with nineteen physicians present, in addition to the nurses and other visitors. Dr. F. E. Sampson of Creston, read a fine paper on The Doctor's Duty as a Citizen and Dr. A. C. Page of Des Moines read a carefully prepared paper on Obstetrics and there was a general discussion. The Decatur County Medical Society is one of the best county societies in the state, every doctor in Decatur county except three being active members.

The following resolution on the death of Dr. J. B. Horner of Lamoni was adopted and placed on the minutes:

Once more the Angel of Death has visited our ranks. This time to take from us our beloved friend and co-worker Dr. J. B. Horner of Lamoni, who for years was an active member of this association. We pause in our deliberation as a society to pay tribute to him in his long and successful career as a practitioner of medicine. He was a scholarly gentleman of the highest type and an honest, upright, industrious citizen.

The election of officers for the ensuing year resulted in the following being chosen:

President—Dr. H. M. Mills, Lamoni; vice-president, Dr. H. O. Peterson, Lamoni; secretary-treasurer, Dr. C. H. Mitchell, Leon; delegate to State Society, Dr. J. W. Wailes, Davis City.

The following is a list of the doctors who attended the meeting: Dr. G. P. Reed, Davis City; Dr. J. C. Coontz, Garden Grove; Dr. Jno Walker, Ft. Madison; Dr. F. E. Sampson, Creston; Dr. D. S. Burbank, LeRoy; Dr. J. E. Brittan, Decatur; Dr. H. O. Peterson, Lamoni; Dr. W. C. Ward, Garden Grove; Dr. H. M. Hills, Lamoni; Dr. Geo. McCullough, Humes-ton; Dr. Enos Mitchell, Grand River; Dr. J. W. Wailes, Davis City; Dr. A. C. Page, Des Moines; Dr. Paul Stookey, Leon; Dr. C. H. Mitchell, Leon; Dr. O. W. Foxworthy, Leon; Dr. H. R. Layton, Leon; Dr. F. A. Bowman, Leon; Dr. B. L. Eiker, Leon.

Des Moines County Medical Society

The annual election of officers, a delightful banquet and an interesting lecture was the substance of the annual meeting of the Des Moines County Medical Society held in Hotel Burlington December 10.

The officers for the ensuing year were elected as follows: Dr. Geo. B. Crow, president; Dr. A. H. Vorwerk, vice-president; Dr. George H. Steinle, secretary and treasurer. On the board of censors, Dr.

E. J. Wehman for three years, Dr. A. H. Vorwerk for two years, Dr. A. C. Moerke for one year. Delegates to the state convention, Dr. C. H. Magee; alternate, Dr. E. J. Woodbury.

Dr. C. E. Ruth of Des Moines read a paper and his talk was illustrated by lantern slides. The discussion of the papers was led by Dr. Frank M. Fuller of Keokuk and Dr. H. M. Camp of Monmouth, Ill. The session was very interesting and largely attended. During the banquet Walter Stone's orchestra furnished the music.

Dubuque County Medical Society

The Dubuque County Medical Society held its annual meeting and election of officers Tuesday evening, December 9. The new officers are:

Dr. Charles Palen, president; Dr. A. M. Pond, first vice-president; Dr. R. C. Sherman of Farley, second vice-president; Dr. J. C. Calhoun, secretary; Dr. G. C. Fritschell, treasurer; delegate to state convention, Dr. E. R. Lewis; alternating delegate, Dr. J. H. Schrup; board of censors, Dr. C. A. Kearney, chairman; Dr. J. J. Rowan and Dr. O. E. Haisch; librarian, Dr. J. H. Schrup.

Fort Madison Medical Society

The regular monthly meeting of the Fort Madison Medical Society was held November 24 at the office of Dr. Casey with the full membership of the society present. Many topics were taken up and discussed.

The feature of the evening was the paper on Antiseptics and Conservative Surgery which was read by Dr. Bess.

The society plans to have a state worker from the board of health to give instruction on social diseases and the necessary steps to combat them.

Iowa County Medical Society

The fortieth annual meeting of the Iowa County Medical Society was held at the Marengo Public Library on Wednesday afternoon, November 5, 1919. The following officers were elected for the ensuing year: Dr. J. C. Patterson, president; Dr. C. F. Watts, Williamsburg, vice-president; Dr. L. B. Amick, Millersburg, censor.

The program of the meeting consisted of papers by the following—Dr. L. B. Amick, War Surgery; Dr. W. P. Hutchins, Medical Ethics; Dr. A. C. Moon, Business End of the Medical Profession.

After the transaction of important business, the doctors were joined by their wives and enjoyed a six o'clock dinner at the River to River hotel.

Those in attendance were Doctors F. C. Watts and A. C. Moon of Williamsburg; L. B. Amick of Millersburg; C. F. Noe, Amana; C. H. Herman, Jr., of Amana; H. J. Moershel of Homestead; J. L. Windham of Conroy; J. L. Augustine of Ladora; S. L. Deiterich of Marengo, E. N. Brown of Marengo and F. O. Blossom of Marengo.

Lee County Medical Society

The semi-annual meeting of the Lee County Medical Society was held at Fort Madison, December 4. An important feature of the meeting was an address by Miss Anna Drake of Des Moines on Tuberculosis.

The program contained the following talks by Keokuk doctors: The Place of Laboratory Work in the Practice of Medicine, Dr. Sarah S. Kelman, Keokuk; Three Interesting Cases, Dr. F. B. Dorsey, Jr., Keokuk; Roentgen Therapy in Sarcoma, Dr. W. A. Smith, Keokuk; Abortion, Dr. W. M. Rankin, Keokuk. The local physicians, surgeons and guests at the Fort Madison meeting yesterday were: Doctors R. M. Lapsley, F. B. Dorsey, Jr., W. M. Rankin, W. A. Smith, S. R. Kelman, C. R. Armentrout, H. A. Gray, Frank M. Fuller, O. T. Clark, Wm. M. Hogue, H. L. Courtright, J. R. Wedel, Miss Nettie Younker and Miss Laura Alton.

Tuberculosis Clinic—The matter of a tuberculosis clinic was favorably received, but the plans for such a clinic were left to the incoming administration. Miss Drake, who is the acting executive secretary of the Iowa Tuberculosis Association made a talk in favor of the clinic.

Dr. R. M. Lapsley spoke on the activities of the Keokuk Visiting Nurse Association and Dr. Frank M. Fuller said that since the establishment of the V. N. A. tuberculosis had been reduced in Keokuk from 13 per cent to 9 per cent.

Marshall County Medical Society

The annual meeting of Marshall County Medical Society was held at the Marshalltown Club Tuesday, December 2. A dinner was served at 6:30 in the club rooms, at which time Dr. R. E. Keyser talked on Post Operative Complications. An interesting address was delivered by Dr. Wilbur S. Conkling, surgeon of the 168th Infantry of the Rainbow Division. Officers were elected at the business meeting.

Mills County Medical Society

The Mills County Medical Association held its annual session on Thursday, December 4, in the Commercial Club rooms at Malvern. After a conference on matters appertaining to the profession, the election of officers was held. The results of that election were the selection of I. U. Parsons, Malvern, as president; Edgar Christy, Hastings, vice-president; Malcolm Campbell, Malvern, secretary and treasurer. A Red Cross and legislative committee was also chosen consisting of J. M. Donegan, Glenwood; I. U. Parsons, Malvern; Malcolm Campbell, Malvern.

Muscatine County Medical Society

Members of the Muscatine County Medical Society will aid the county nurse in examination of public school pupils of the county and the aid they give will be free. This action was taken at the annual meeting of the society, held in the office of Dr. W. W. Potter.

A committee, comprising Drs. T. F. Beveridge, A. J. Weaver and F. L. Appel, was named to confer with E. D. Bradley, county superintendent of schools, and make some kind of an arrangement. The result of their work will be reported at the next meeting, January 15.

The question was brought up in the discussion following a paper dealing with the results of the examination by the county nurse thus far. It is the plan not only to give these examinations free of charge, but to make them compulsory.

The paper of the evening was read by Dr. T. F. Beveridge, his subject being, Some Unusual Cases which have Arisen in My Practice.

The officers elected for the ensuing year are: President, Dr. D. Powell Johnson; vice-president, Dr. W. H. Johnston; secretary-treasurer, Dr. W. W. Potter; censor, Dr. F. L. Appel; delegate to state convention, Dr. W. W. Potter; alternate, Dr. W. H. Johnston.

Plymouth County Medical Society

The regular bi-monthly meeting of the Plymouth County Medical Society was held Tuesday evening December 2 in the Commercial Club rooms at Le Mars.

The election of officers for the ensuing year resulted as follows:

President, Dr. E. G. Vernon, Merrill; vice-president, Dr. W. W. Larson, LeMars and secretary-treasurer, Dr. W. J. Brunner, Akron. Dr. A. H. Jastram of Remsen was elected to represent the society at the annual meeting of the state association, which will be held in Des Moines next April.

The society discussed the matter of the adoption of the Metric system of weights and measures, which is receiving the attention of leading societies, and scientists in various parts of the country, and adopted resolutions recommending the system. A copy of the resolutions was forwarded to members of congress.

Dr. A. H. Jastram of Remsen, read a paper on The Fixation of Atmospheric Nitrogen, which related to the use of nitrogen in its relation to explosives, fertilizers and in its adaptation to use in the conquering of the air. This subject was of deep interest, since it related to the scientific experiments and successes which are at present occupying the minds and the time of government experts to an unusually extensive degree. Dr. F. G. Vernon of Merrill spoke on The Treatment of Pneumonia. Dr. A. J. McLaughlin of Sioux City gave a discussion on the most advanced methods of treatment of venereal diseases.

Polk County Medical Society

The Polk County Medical Society held its annual meeting at the Harris-Emery Tea Room Tuesday night, December 23. The attendance was large. One feature was the presence of the wives of the medical men. Miss Jacobson sang and Miss Headlee gave readings.

The principal address of the evening was delivered by Dr. John G. Bowman, former president of the Iowa State University, and who, for the past five years, has been director of the College of Surgeons with headquarters in Chicago, representing four thousand surgeons. Dr. Bowman stated that the college of surgeons was for the general improvement of the profession, raising the standard of ethics and coordinating the work and conduct of hospitals. He urged that the doctors who do the work at the hospitals should be considered part of the institution; should have frequent meetings and consultations and that there should be a complete record of every patient having been cared for in any hospital.

The other speaker of the evening was Father Moulinier of Milwaukee. Father Moulinier is regent of Marquette Medical School and president of the Catholic Hospital Association. These speakers took wide scope in regard to the ethics of the profession. Mr. Bowman unsparingly denounced the fee splitting custom which prevails in some parts of the United States and said this custom prevailed in northern and northwestern Iowa, Minnesota and the Dakotas and Nebraska, as well as elsewhere.

The meeting being the annual one, officers were elected as follows: Dr. Channing Smith, president; Dr. Chas. F. Smith, vice-president; Dr. Thomas F. Duhigg, secretary; Dr. E. B. Mountain, treasurer; Drs. Howard Gray and J. Charles Ryan were elected delegates to the state convention. The retiring president, Dr. John H. Peck, presided. The Polk County Medical Society meets once each month during the year, omitting July and August.

Bulletin of the Poweshiek County Medical Society January 15, 1920

This is the time of year when your annual dues should be paid. The dues this year remain the same, viz: \$6.00. Five dollars of this amount goes to the State Society and in return the member receives the Journal and medico-legal protection for the year 1920. Those who do not pay by February 1 stand in suspension. Please attend to this promptly.

The next annual meeting of the State Society will be held at Des Moines on May 12, 13, 14, 1920.

The annual meeting of the society was held at Grinnell December 2, 1919. At the meeting the following officers were elected: President, Dr. E. B. Williams, Montezuma; vice-president, Dr. E. S. Evans, Grinnell; secretary-treasurer, Dr. E. E. Harris, Grinnell; censor, Dr. L. F. Crain, Deep River; delegate, Dr. E. E. Harris, Grinnell; alternate, Dr. E. F. Talbott, Grinnell.

It was voted that the annual meeting be held on the first Tuesday in June hereafter. The secretary reported \$77.27 in the treasury and twenty-seven members on the society roster.

Dr. W. S. Chester of Deep River was elected to membership in the society and Dr. L. A. Hopkins and J. L. Ranites of Montezuma applied for membership.

Do not forget to send in your annual dues. The

secretary wishes to make his report to the State Society by January 25, so try to get your dues in by that time.

E. E. H., Sec'y.

Scott County Medical Society

The annual election of the Scott County Medical Society held in the club rooms of the Davenport public library resulted in the choice of the following named officers: President, Dr. J. D. Blything; vice-president, Dr. E. O. Ficke; secretary, Dr. R. E. Jameson; treasurer, Dr. S. G. Hands; censors, Drs. James Dunn, Frank Neufeld and Henry Braunlich. Delegates to Iowa State Medical Society meeting, Drs. A. P. Donahue and J. S. Weber.

Tama County Medical Society

The regular meeting of the Tama County Medical Society was held in the commercial club rooms in Toledo, November 21, 1919. Papers were read by Dr. J. A. Pinkerton of Traer; Dr. Gessner, Dysart and Dr. C. W. Maplethorpe of Toledo. Dr. A. J. Farnham of Traer, president of the association and Dr. P. L. Parsons, secretary.

Webster County Medical Society

The meeting of the Webster County Medical Society took place Tuesday evening, November 11. Pneumonia as a sequel to influenza was the subject under discussion.

Association of Iowa Medical Directors

The semi-annual meeting of the Association of Iowa Medical Directors was held at the Grant Club in Des Moines, Friday, November 28. The association membership is made up of the medical directors of the life insurance companies of Iowa.

One of the features of the program was an address by Dr. W. F. Milroy of the Bankers' Reserve Life Company of Omaha. Dr. Milroy delivered his talk at the 6:30 o'clock dinner. Henry S. Nollen, vice-president of the Equitable Life of Iowa, also was one of the evening speakers.

The program for the convention was as follows:

Two P. M.—Urinary Preservatives, Dr. G. E. Crawford, Cedar Rapids; Flu Chest, Dr. A. C. Page, Provident Life; Medical Examination from Field Standpoint, Dr. E. R. Posner. Report of recent life meeting in New York City—Dr. J. T. Priestley, Royal Union Life; Dr. Olsen, Central Life; Dr. F. L. Wells, Equitable Life. Selection of Medical Examiners, Dr. M. L. Turner, Western Life; Significance of Casts in Urine, Dr. G. E. Becker, Register Life.

Six-Thirty P. M.—Dinner. Address—Dr. W. F. Milroy, Bankers' Reserve of Omaha. Address—Henry Nollen, Equitable Life.

Physicians' Club of Keokuk

The Physicians' Club of Keokuk held its December meeting December 9 at 6 o'clock in the private dining room of the Y. W. C. A. where supper was served to the guests.

Following the supper hour a business meeting was held and these doctors were elected to act as the officers of the club for the new year, beginning next month: President, B. L. Gilfillan; first vice-president, William M. Rankin; second vice-president, O. T. Clark; secretary, H. A. Kinnaman; treasurer, C. A. Dimond.

Sioux City Homeopathic Society

Dr. W. H. Hanchette was elected president of the Sioux City Homeopathic Society at the annual banquet of the society held Tuesday night, December 16, at the home of Dr. S. W. Staads, 3002 Jackson street. Other officers elected were: Dr. S. B. Hoskins, vice-president; Dr. J. H. Lawrence, secretary and treasurer, and Dr. J. L. Hanchette, historian.

Waterloo Medical Society

Dr. Earnest E. Irons, Rush Medical School, Chicago, read a paper on pneumonia before the Waterloo Medical Society, December 17, in Hotel Russell-Lamson. Nearly 100 physicians were present.

Dr. Irons said that it is the tendency of physicians in treating pneumonia, and all diseases, to give medicine only a symptomatic treatment. Symptomatic treatment is to treat symptoms as each arrives. He also said that the treatment with serums and vaccines, which has been largely used, has been found unsatisfactory and that in every infection nature should be assisted and allowed to effect her own cure. A sick man's system will generate its own antitoxins, he said. Treatment of pneumonia, as used now, is the same treatment that was used five years ago and more, Dr. Irons declared.

A. M. A. NEWS

The American Medical Association will meet this year in New Orleans, April 26 to 30. Hotel Grunewald, general headquarters.

SECTIONS—St. Charles—Medicine, Diseases of Children and Urology. Grunewald—Obstetrics, Gynecology, Abdominal and Orthopedic Surgery. Plantars—Pathology, Therapeutics, Pharmacy and Physiology. Monteleone—Otology, Laryncology, Rhinology and Ophthalmology. Lafayette—Gastro-Enterology, Proctology, Nervous and Mental Diseases and Stomatology. Hotel DeSoto—Preventive Medicine, Public Health and Dermatology.

The plan will be for the Iowa Contingent to the A. M. A. to meet in Chicago and use two Pullman sleepers which will be attached to the Journal special and go direct to New Orleans over the Illinois Central, thus making a quick trip and affording a royal and social time en route.

Iowa headquarters will be at Hotel Grunewald. Those expecting to make the trip should write the hotel for reservations early and if they fail to get accommodations the St. Charles Hotel is nearby. The complete Itinerary and accommodations of the trip will appear in the March issue of the Journal and for further information address J. W. Cokenower, Des Moines, Chairman, Committee on Transportation.

MEDICAL NEWS

Dr. J. M. Knott, who has practiced medicine for nearly 50 years in Sioux City, announced today that he would retire from active practice after he had completed a half century as a doctor, and depart for Los Angeles, California, where he will live with his daughter, Mrs. Frank Clarkson. On March 2, 1920, Dr. Knott will have completed his fifty years as a doctor. Forty-eight of the fifty years he followed the practice in Sioux City.

Dr. Knott was born in Clifton, Ohio. When he was seventeen years old, and attending college preparing for the study of medicine he gave up his studies and enlisted in the 153rd Ohio Infantry for service, in the Civil War. One year later he was commissioned a lieutenant and transferred to the 186th Ohio Infantry. He was discharged in 1865.

He returned to college and later studied medicine in the George Washington University at Washington, D. C. He was graduated in 1870 and during the next two years practiced medicine in Joliet, Ill.

In 1872 Dr. Knott came to Sioux City and began to practice medicine here. The population then was about 3,500. At the time Dr. Knott opened his offices there were five doctors in the city. The territory for miles around was covered by the five doctors.

"For days at a time," Dr. Knott said, "I had to go without sleep in an endeavor to take care of patients that needed medical attention. It was our custom to answer and treat all calls in the city during the day and at night to hire a rig and answer calls to country houses and towns, sometimes as far as fifty miles away. It was the rule, rather than the exception, to arrive back in Sioux City about nine in the morning and without sleep begin the day's work."

During these nightly rides it was not uncommon, Dr. Knott said, to see deer and coyotes along the roads. The roads were only trails and the bridges spanning the creeks were made of logs and covered with hay. To cross the Missouri and Sioux rivers in answering calls, ferry boats were used in the summer and the crossing in winter time was made on the ice.

Only two railroad lines entered the city in the early days, he pointed out. There were no rail connections with either South Dakota or Nebraska.

Dr. Knott is a member of the Woodbury County Medical Society, State Medical Society, and the American Medical Association. He also is a member of the G. A. R.

Mrs. Calista Patchin, former Des Moines club woman and well known Iowa author, died at Loomis, N. Y., recently.

Mrs. Patchin's health had been poor for the last two years and in hopes of restoring it she had sojourned to Florida, North Carolina and New York.

Her sons, Robert H. and Oro H. Patchin were with her at the time of her death. A third son,

Phillip was on his way to her bedside from California.

The body was brought to Des Moines where funeral services were held from the St. Paul's Episcopal church.

Dr. Patchin died in 1903.

Mrs. Patchin married Dr. Patchin and came to Iowa in 1880 from Ohio.

Preceding her marriage she was on the editorial staffs of the Washington Post and the Republic, a weekly of the late seventies. After her arrival here she devoted herself to the development of art and literature. She was a charter member of the Des Moines Women's Club and sponsored the movement which brought the first art exhibit to Des Moines.

"The Professor," one of her later short stories appears in "Prairie Gold." She is the author of a number of others including, "Two of Us."

Dr. G. A. Smith has been appointed by the Clinton county board of supervisors to conduct a daily clinic in the county. His salary will be \$1300 a year and his assistant, Mrs. Alice E. Sievers is to receive a salary of \$1040 a year from the county.

The Keokuk Clinical and Pathological Laboratory in the Masonic Temple under the direction of Sarah R. Kelman, A.B., M.D., was opened December 2 to Keokuk people and their guests. The Physicians' Club of Keokuk entertained the visiting doctors at dinner at Hotel Iowa. Dr. Henry Albert of Iowa City, Dr. William H. Rendleman of Davenport, Dr. Kelman of Keokuk and Mayor Lofton addressed those present at dinner.

Plans for a memorial for nurses of northwestern Iowa who died in war service were discussed at the meeting of the members of the first district of the Iowa State Nurses' Association at the nurses' club house at Twentieth and Jackson streets. Suggestions for a memorial included a club house in Sioux City as a permanent tribute to the nurses from this section of the state. Members of the association in this part of the state, who died in the service, are Edith Becker, Doris LaResche and Julia Satrigan.

The Des Moines Pathological Society entertained at dinner Saturday evening at Hotel Savery complimentary to Dr. Victor G. Vaughan, who is in the city to speak at Plymouth Congregational church on "National Welfare." Dr. Daniel Glomset and Dr. Julius Weingart were in charge.

President Marion L. Burton of the University of Minnesota will leave for Rochester, where he will present a framed resolution to Dr. William J. Mayo and Dr. Charles H. Mayo in behalf of the regents of the university.

The resolution is an expression of appreciation for the Mayo Foundation for medical education and reads as follows:

"Whereas, Dr. William J. Mayo and Dr. Charles H. Mayo of Rochester, Minnesota, have given the sum of \$1,650,347.79 to the University of Minnesota for the establishment of a fund to be known as the 'Mayo Foundation for Medical Education and Research' and,

"Whereas, this gift has been duly accepted by the united action of the board of regents,

"Therefore, be it resolved that the board of regents record its profound sense of gratitude to the donors.

"The gift is unique in the annals of American education. It represents the lofty purposes of the two most distinguished citizens of our commonwealth. They believe that this money has come from the people and that it should be returned to the people. It has been the sole aim of the donors to provide a fund which would be a permanent benefit to the State of Minnesota and to mankind as a whole. They have wisely and appropriately provided that the income of the fund shall be used for medical education and research.

"American universities should be encouraged in the prosecution of an educational policy which aims to develop investigators and scientists of first rank. One clear function of a true university is to make actual contributions to the various fields of knowledge. This new foundation, therefore, relates itself very intimately to the realization of our highest educational aims. Both for the gift itself and for the genuine impetus which it would impart to scholarly investigation at this university, we desire to convey to the donors our sincere appreciation."

The resolution bears the signature of the members of the board of regents, Dr. Burton and J. M. McConnell, superintendent of education in Minnesota.

While in Rochester Dr. Burton will attend the meeting of the State Committee on Medical Education.

Speculation is rife as to when Dubuque will get the new detention hospital. Some are wondering if the matter has entirely been forgotten, if not, how soon some action will be taken. More than six months ago the county voted on the bond issue of \$40,000 for the hospital. It was carried. Later the bonds were sold, but there is still no indication that the work will be started this fall. Actual steps toward the construction of the new detention hospital for Dubuque county were taken by the board of supervisors when on receipt of a petition of the board of hospital trustees, the money derived from the sale of bonds was turned over to the latter. Members of the hospital board stated that as soon as the plans for the new hospital could be prepared actual construction work would begin and they hoped to have the hospital completed by next July. The site for the building will be adjoining the new tubercular hospital now being erected on Fifth avenue, north of the city, and the same lighting, heating and sewerage system will serve for both buildings.

Dr. Cora Hesselberg has been appointed bacteriologist in charge of the laboratories for the state board of health for Dubuque. The letter of appointment was turned over to Health Officer Neuman, by Mayor James Saul. Any examination she may make, relative to determining any disease of will be regarded by the state board of health as official. This appointment is of special importance in connection with release of quarantine for diphtheria. Dr. Hesselberg's laboratory is in the Finley Hospital.

Forty-three physicians were granted certificates entitling them to practice medicine in the state by the Iowa state board of medical examiners. Three osteopaths were also granted certificates upon basis of examination. The remainder granted certificates were divided into two groups. Eleven were given certificates upon basis of examination, and thirty-two under reciprocal agreements with other states.

A resolution requesting the Scott County Board of Supervisors to take some steps toward providing a detention hospital where persons suffering from venereal diseases may receive the proper treatment was passed by the Davenport City Council. This action on the part of the council was the result of Dr. W. S. Conkling of the Iowa State Board of Health, appearing before the aldermen and asking that some action be taken on the matter.

Doors of the Samaritan Hospital, formerly the City Hospital, Fourth and Centers streets, Des Moines, were thrown open to the public in a general reception recently. The hospital has been newly equipped and decorated. It has a capacity of seventy-five beds. A training school for nurses is being established in connection with the hospital. The training school will give a three years' course to nurses, as in similar hospitals. Dr. R. A. Weston, Dr. D. F. Crowley and Dr. J. W. Osborn are some of the physicians on the hospital board. Miss Lenore Addington is superintendent.

Construction work on Newton's magnificent new \$150,000 hospital is under way.

Dr. Samuel T. Orton will take charge of the work in connection with the new psychopathic Hospital at Iowa City to be erected in the near future. Dr. Orton comes from the Pennsylvania Hospital at Philadelphia.

Great interest in the proposition to establish a clinic in Grinnell for the treatment of venereal disease was aroused at the meeting of the Poweshiek County Medical Society in Grinnell, November 20. Colonel Wilbur S. Conkling, Federal Director of Venereal Disease Control for the State of Iowa was present and made the main address. He recommended the establishment of a clinic in Grinnell. The plan is to put some local physician in charge of the clinic who will have the entire county under his

direction. Branches will be established in the other towns of the county in charge of physicians resident in those towns. The members of the board of supervisors were all present and manifested their interest by the many questions which they put to Colonel Conkling. There was also a good-sized representation of physicians from over the county.

At a called meeting of the Fort Madison Medical Society October 31, the fee bill adopted 1909 was remised, effective this date. Following are a few of the important changes: Day calls \$3.00. Night calls \$5.00, between the hours of 9 p. m. and 7 a. m. obstetrical cases \$25.00. The following physicians and surgeons of Fort Madison attach their names hereon: Drs. A. T. Phillpott, W. H. Newlon, R. L. Freightner, J. F. Chalmers, Thos. Bess, W. C. Kasten, J. M. Casey, I. W. Traverse, V. T. Doering, R. S. Riemers.

Farmer the Goat as Prices Drop

November 25, 1919.

Editor Des Moines Capital:—I notice an article in your paper, Thanksgiving dinner getter higher every year. Look at prices in past years. Why not look at the difference in prices farmers receive, and consumer pays. You quote turkeys at 50 cents, potatoes at \$3, cucumbers at 25 cents each, eggs 80 cents, butter 70 cents. Farmers get 28 cents for their turkeys, \$1 per bushel for cucumbers, are less than 1 cent each, 55 cents for eggs, 45 cents for butter and about \$1.50 for potatoes. Who is the goat?—Signed, A Farmer.

The following resolution was adopted by the Dubuque County Medical Society at its regular meeting Tuesday evening, November 11. "We, the members of the Dubuque County Medical Society, who have and are desirous of giving the county patients the best medical treatment obtainable, wish to refute the statement of the county supervisors in reference to Mrs. Laura Ackroyd saying that 'her treatment of the members of the society was domineering and officious.' As far as the profession is concerned, our relations have been the most pleasant, and greatly to the benefit of the county charges, and she has conducted her office in a business-like manner, showing partiality toward none."

The physicians of northern Polk, northern Dallas, southern Boone and southern Story counties have adopted a new uniform schedule of medical fees. The schedule shows an advance in some instances but are lower than those in use in most localities. The schedule follows: Office call, minimum, \$1. Day call, 7 a. m. to 7 p. m. minimum, \$2. Night call, 7 p. m. to 7 a. m., minimum, \$3. Mileage: Day, \$1 per mile up to five miles, then 75 cents per mile; night, \$1.50 per mile, with \$1.00 per mile after five miles. Additional patients in same house, same as office calls. Obstetrical cases, \$25 and mileage. Abnormal obstetrical cases, extra charge according to

severity of cases. Detention, \$2 per hour after four hours, any case. All miscarriages same as obstetrical cases. Consultation fees, \$15 and up and mileage. Quarantineable cases, \$1 extra each visit. Urine analysis and laboratory work at regular laboratory rates. Surgical fees, according to the nature of the case. Medicine and supplies furnished at current rates. All fees are due when service is rendered.

At the recent meeting of the Boone County Medical Society the city physicians arranged a cooperative rotation service for weekly clinics to be held at the Community Health Center on Tuesday of each week, hours 11 to 2 p. m. The physicians service will be alphabetical, each physician called according to letter. The next regular clinic will be on Tuesday, November 11. These clinics are for the public and purpose to give a general clinical service caring for all of the different branches of public health work; they are for the safeguarding and protection of the public at large and the prevention of sickness and disease and the teaching of health and right living and should be used by all in need of such a service. Many times disaster could be averted if taken in time and so prevention by early diagnosis and proper treatment may arrest disease. The United States Public Health Service figures that the early diagnosis is the fundamental principal of all health work and prevention and if we are able to make this early diagnosis the nation's loss of life and efficiency will be lessened tenfold, therefore the government is urging the use of and establishing the Health Center and General Clinic as the most effective means of conserving human life and usefulness.

The proposal for a Memorial Hospital at Indianola was defeated. Votes—Yes, 705; no, 2135.

The physicians of Logan have subscribed about \$800 to erect a hospital at that place and are extending an invitation to the citizens to aid in this important undertaking.

It is reported that the thing most needed in Green county is a hospital at Jefferson.

The "Democrat," an important newspaper of Davenport, announces that several brands of patent medicines will be eliminated from its advertising columns.

It has been proposed to vote bonds to the amount of \$100,000 to build a hospital at Sigourney; but the "What Cheer Patriot," thinks that the county has got along without a hospital for a long time and can wait until industrial conditions are better.

Notice of special election in Keokuk county to be held December 29 was issued for the purpose of voting bonds to build a memorial hospital to soldiers, sailors and marines of that county. The measure was defeated.

The enclosed letter or part of a letter from Dr. Arthur W. Erskine of Cedar Rapids is published for the reason that apparently differences of opinion exist in relation to x-ray and radium therapeutics.

"There are, however, many exaggerations and misstatements of facts in the article which should have been edited out of it. For example, there are neither alpha nor beta rays in x-rays outside the tube. In practice, while the gamma rays of radium have a shorter wave length than x-rays, they do not "have a deeper effect." It is by no means established that the favorable effect produced by raying carcinoma of the breast, is due to the "destruction of small blood-vessels by producing edema of the 'endothelial' lining, stopping the nutrition of the growth." Radium will not "often" stop the progress of cancer of the tongue, nor are there "a great many that were hopeless cases a year or two years ago, still in good health." Uterine fibroids and hemorrhage should be treated by roentgen therapy until the hemoglobin is raised to 65 per cent, and no surgical procedures should be undertaken until that time."

ANNUAL CONGRESS ON MEDICAL EDUCATION AND LICENSURE

The Council on Medical Education of the American Medical Association; the Association of American Medical Colleges and the Federation of State Medical Boards of the United States. The annual Congress will be held March 1, 2 and 3 in the Florentine room of the Congress Hotel, Chicago.

OBITUARY

Dr. J. J. Kackley, a pioneer doctor in Guthrie County, located at old Morrisburg in Civil War days, died in November, at his daughter's home in Chetopa, Kansas, at the age of almost ninety-four years.

Dr. Kackley was born in Ohio, taught school, and came to Iowa in 1855. He studied medicine in Mt. Ayr and in 1861 arrived at Morrisburg. He lived there and practiced until 1870, went to a school in St. Louis and then came back to Guthrie county for two or more years, then moved to Arkansas and has lived there and in Kansas ever since. His wife is still living, at the age of eighty-nine years and he also leaves a daughter and a son.

Dr. M. F. Pritchard of Cherokee, a homeopathic physician, died November 22 at the age of sixty-seven years. He was a graduate of Hahnemann Medical College, of New York. Dr. Pritchard located in Cherokee in 1874.

Dr. William H. Townsend of Sac City, died at his home December 24, 1919 at the age of fifty years.

Dr. Townsend was born on a farm in Webster county, January 19, 1869, graduated from the medical department of Iowa's State University in 1897, prac-

ticed at Lehigh, Iowa. In June, 1898, he enlisted as a private in Company G, 52nd Iowa Infantry for the Spanish American War, was soon made assistant surgeon. On returning to private practice, located in Odebolt. In 1900, married Miss Eva Roosa and moved to Sac City where he practiced medicine until the time of his death.

Dr. William A. Marner died at Miles, Iowa, December 2. He was suddenly taken ill about 5:00 o'clock and died at 11:00 o'clock.

He was the son of Mr. and Mrs. Jonothan Marner. He was born at Johnstown, Pennsylvania, February 7, 1858 and was the second of a family of ten of whom eight are living. He married Claribel Strickler of Iowa City September 6, 1883. Graduated at the medical school of the same place. In 1885 he went with his bride to Bryant, Iowa. They lived there until 1886, when they moved to Miles, Iowa. He united with the Congregational church of Iowa City in 1887.

Dr. W. R. Young died suddenly on December 17 at his home in Long Beach, California, to which city he had moved from Ansley, Nebraska, in March of last year.

William Rutherford Young was born in Pittsburg, Pennsylvania, on September 8, 1868. At an early age he, with his parents, moved to Iowa where the home was established and where he grew to that splendid and promising manhood that is yet among the priceless inheritances of the old neighborhood. After finishing the work in the rural schools he became a student at the Iowa City Academy, and from here he entered the State University, finishing with marked honor the collegiate and medical courses, obtaining his degree in 1893. He began the practice of his profession at Marengo, and on August 21, 1894 he was united in marriage to Miss Mae Roloson. After practicing in Iowa nearly five years Dr. and Mrs. Young moved to Ansley, Nebraska, where he soon acquired a large and successful practice.

Dr. Martin F. Moore died of heart failure at 9:50 o'clock December 27, at the Ottumwa Hospital. Dr. Moore was forty-three years of age, and had been in general practice in Ottumwa for the past four years, coming here from Martinsburg, where he had practiced for a number of years.

Dr. Alexander Crawford, age sixty-two, died at his home in Mount Vernon, Iowa, Saturday morning, January 10 of angina pectoris.

The immediate cause of the fatal attack was probably a trying motor trip of seventy miles over snow covered treacherous roads from Clinton to Mount Vernon. He arrived at Mount Vernon in great distress and died in a few hours.

Dr. Crawford graduated from Rush Medical School in 1883, practiced at Andrew and Miles and for twenty years at Mount Vernon, Iowa, retiring from active work only a year ago. He was a student as

well as a practitioner, a member of many medical societies, always deeply interested in civil and educational affairs and a man of exceptional intellectual and professional attainments.

In his passing the community loses a genuinely public spirited man and the profession a cultured "family physician" of the best type.

PERSONAL MENTION

Dr. G. L. Atkins has located in Jackson. Dr. Atkins formerly practiced in Estherville.

Dr. Mitchell Langworthy has located in Dubuque. Dr. Langworthy saw active service with the Second Division in France.

Dr. O. J. Fullerton of Waterloo has retired after forty years of active practice.

Dr. R. H. Woodruff has been honorably discharged from service in the United States Army and has returned to Charles City.

Dr. C. A. Nolan of Ogden has removed to Boone, where he will practice his profession. Dr. Nolan is a graduate from the medical department of the Iowa State University, 1905.

Dr. Geo. Maresh, for many years practicing at Riverside, has decided to move to Iowa City.

Dr. Lenna Means of Des Moines has gone to Nashville, Tennessee. She acted as hostess at the International Convention of Women Physicians of the Waldorf Hotel in New York recently.

Dr. H. E. Farnsworth of Cherokee has decided to locate in Storm Lake for the practice of medicine. Dr. Farnsworth is a graduate of the State University of Iowa, following which he spent a year in the city and county hospitals at Denver. He then entered the army in the medical corps and served a year. He was released last June and since that time he has been recuperating from a severe attack of influenza and pneumonia.

Dr. J. U. Gehlen, recently discharged from the United States Navy, following active service during the war, has located in Le Mars.

Dr. M. F. Smith, recently in the United States Medical service has located in Wesley.

Dr. Elbert E. Munger of Spencer has not moved to Chicago, as stated in the November number of the Journal. Dr. Munger assures us that he belongs to Spencer.

Dr. Charles E. Irwin of Belle Plaine has located in Cedar Rapids.

Dr. C. C. Blakely of Charles City, who received his discharge from service at Camp Dodge, is taking graduate work in Chicago.

Dr. Hugh Mullarky of Manson, after a residence of twenty-eight years, interrupted only by a service in the United States Army in the World War, has sold his practice to Dr. Robert Hendricks. Dr. Mullarky will probably go to California.

Dr. C. H. Doty received notice from the war department advising him of his promotion to a captaincy.

Dr. Guilford H. Sumner, secretary of the state department of health, attended an executive committee of the American Public Health Association in New York City during the first week in December.

Dr. Thomas Lucast was in Minneapolis to attend the National Convention of the American Legion. He was a delegate from this congressional district to the convention.

Dr. Fred S. Spearman, formerly of Whiting where he had practiced for fifteen years has located in Rifle, Colorado. This change was necessary on account of impaired health. Dr. M. O. Stanch will succeed Dr. Spearman at Whiting.

Dr. A. S. Geiger has purchased the practice of Dr. Harrington of North English. Dr. Geiger has been in the medical service of the army for two years.

Dr. Earl C. Montgomery, a graduate of the medical department of the Nebraska University at Omaha, has opened an office in Atlantic.

Dr. G. B. Snyder of Everly, has sold his practice to Dr. E. R. Leonard of Rock Valley. Dr. Snyder expects to go to the Isle of Pines.

Dr. V. J. Meyer of Defiance has located in Harlan.

Dr. H. H. Barrett, who has been connected with the naval hospital at Washington, D. C., for two years, has returned to Sioux City.

Dr. R. L. Russell, agent of the Sac & Fox Indians and superintendent of the Indian Sanatorium since October, 1913, has been given a most deserving promotion, and after January 1, 1920 will be field medical supervisor for the entire Indian service. He will be succeeded here by Dr. Jacob Breid, at present superintendent of the sanatorium at Fort Lapwai, Idaho. The new agent and superintendent is a man of much experience in the Indian service. He has been at the Fort Lapwai sanatorium for two years and prior to taking up his work there was superintendent of a sanatorium at Phoenix, Arizona. Dr. Breid will arrive here late this month and will assume his new duties January 1.

In the November number of Good Housekeeping under the heading "five of the world's foremost women doctors at the international conference," appears a picture of Dr. Lenna Means of Des Moines.

Dr. H. B. Young celebrated the fortieth anniversary of his arrival in Burlington, Friday night, December 28 by entertaining all the physicians in town and his neighbors at his home at 1027 North Fourth street.

Dr. Peter M. Herny is in partnership with Dr. W. B. Chase. Dr. Herny is a graduate of the medical department of the State University of Iowa at Iowa City. He has taken a special course in tuberculosis and diseases of the chest. Dr. Herny is a graduate intern of the Montreal General Hospital.

Dr. E. D. McClean, formerly of the firm of Drs. McClean and Johnson of Oskaloosa, who served on the orthopedic staff of Base Hospital No. 88 in France and received his discharge at General Hospital No. 26, Fort Des Moines, has located in Des Moines with offices in the Iowa building. Dr. McClean's practice is limited to orthopedic surgery.

MARRIAGES

Dr. D. J. Wallace of New Sharon and Miss Saindon of Oskaloosa, November 28.

Dr. M. C. Carpenter of Fairfield, president of Jefferson County Medical Society and Clara Booker Howlett, assistant librarian of Fairfield City Library.

Dr. Maude Hall of Grant, Montgomery county and Lieutenant W. M. Winnet were married recently on the Mount of Olives, near Jerusalem. Both of them were engaged in Red Cross work in the Holy Land. The bride took a medical course at Iowa City and when the war broke out she tendered her services and was sent to the far East.

Dr. Stuart McGuire, Richmond, Va., and Miss Ruth I. Robertson of Walkerton, Canada, formerly superintendent of St. Lukes Hospital of Richmond, were married August 12.

BIRTHS

Born to Doctor and Mrs. Ben C. Hamilton, Jr., of Jefferson, a daughter, December 17, 1919.

BOOK REVIEWS

RECONSTRUCTION THERAPY

By William Rush Dunton, Jr., M.D. W. B. Saunders Co., Philadelphia and London, 1919.

This is stated by the author to be "an endeavor to sum up the results of a number of years' experience and study of a subject which is in progress of growth" and he believes that with the increased interest in this line of work since the Great War, there is need for a resume of the results obtained that time may not be lost in the working out of methods in a field where this has already been developed.

Starting with the dictum that it has been proven that reconstruction therapy can be used to restore both the physically and mentally sick to their normal or perhaps above it, and make them once more useful units in a community, he proceeds to outline what has been accomplished, presenting some of the difficulties encountered, the problems arising, how they may be met, the need for and the qualifications requisite in an occupational director—in short, a complete discussion of the subject, by a man eminently fitted for the task.

The introduction deals with general tests and direction tests as a preliminary; the succeeding chapters deal with such parts of the subject as, what occupation is—qualifications of an occupational director and what are his duties—and such matters as financial considerations—training courses—amusements—work shops. Occupational therapy and the war, is then taken up, also prosthetic appliances—physical education—occupations for the blind, and for the feeble-minded—and the connection of this work with social service. A bibliography closes the volume.

The illustrations are of particular interest in the

chapter on prosthetic appliances. While of course this book is of most interest to those already in, or beginning this work, its perusal will repay any medical man or social worker, or in fact any one concerned with the human race and its improvement.—Captain H. R. Reynolds, M.C.

THE PERITONEUM

Volume One. The Structure and Function, in Relation to the Principles of Abdominal Surgery. By Arthur E. Hertzler, M.D., F.A.C.S. Surgeon to the Halstead Hospital, Halstead, Kansas; Associate Professor of Surgery, University of Kansas; Formerly Professor of Pathology, Experimental Surgery and Gynecology, University of Medical College, Kansas City, Mo. A Contribution from the Laboratory of the Halstead Hospital and from the Department of Anatomy of the University of Illinois. Volume ii. The Peritoneum; Diseases and Treatment, by Arthur E. Hertzler, M.D., F.A.C.S. C. V. Mosby Co., St. Louis, Mo. Price, \$10.00.

The two volumes included under this notice contain the exhaustive studies of Dr. Hertzler on the peritoneum covering a period of twenty-five years. The first volume is devoted to the physiology and anatomy of the peritoneum. The nature of the peritoneum is considered; the formation of lymph; the mechanism of absorption; avenues and rate of absorption; factors which delay absorption; effects of inflammation on the rate of absorption; sensibility of the peritoneum; the great omentum. A chapter on the histology of the peritoneum and a chapter on the developments of the peritoneum. After these preliminary considerations, the gross anatomy of the peritoneum is presented in detail in all its relations to the abdominal cavity. This discussion is of great practical value. The numerous illustrations together with the clear and concise statement of facts in the text are unusually helpful to the student and surgeon. Considerable space is devoted to the numerous folds and fosa which have given rise to so much controversy. The author has omitted these useless discussions and has confined himself to anatomical facts. Chapter five is devoted to wound healing and chapter six to the nature and genesis of peritoneal adhesions, chapter seven to the prevention of adhesions. Chapter eight to changes in the circulation and chapter nine to inflammatory reaction of the peritoneum.

The second volume begins with a classification of peritonitis and its etiology, pathology and symptomatology, diagnosis, prognosis and treatment. The author in considerable detail reviews the history of the treatment of peritonitis, both medical and surgical, leading to the operative treatment, irrigation and drainage. A chapter is devoted to the general principle of operations on the peritoneum. A rather extended discussion of appendicitis and its treatment; reviews the generally accepted facts in rela-

tion to this organ mostly from German literature. The same is true of cholecystitis and peritonitis. A short chapter is devoted to puerperal peritonitis in which Holmes is credited as the first to formulate the infectious theory of the disease.

An interesting historical account is given of the development of our knowledge of tuberculosis of the peritoneum, chiefly derived from French and German literature. Two chapters are devoted to the great omentum, including thrombosis and embolism of the mesenteric vessels, torsion and injuries. A valuable contribution is made to our knowledge of tumors of the peritoneum. The work of Dr. Hertzler is a valuable contribution to our knowledge of the peritoneum both from an anatomical and physiological standpoint, but also in relation to its diseases. It is to be regretted that the author has found so little in American literature worth referring to.

THE HEALTH OFFICER

By Frank Overton, M.D., D. P. H. Sanitary Supervisor New York State Department of Health and Willard J. Denno, M.D., D. P. H. Medical Director of the Standard Oil Company. Octavo of 512 Pages with 51 Illustrations. W. B. Saunders Company, 1919. Cloth, \$4.50 Net.

This book is a valuable contribution to public health service. While it is intended primarily for health officers, it may be read with profit by others who are interested in health matters. The first chapter is devoted to organization and powers of a health department followed by a chapter on the health officer himself, his functions as a public health adviser. It is pointed out that a physician however successful in practice, is not qualified as a health officer without special training. Reference is made to the relations of health officers to physicians. He must be an educator and a man of affairs. Another chapter relates to health boards, their qualifications and duties, their relations to the public, records, reports and procedures, local sanitary codes, vital statistics, public health nursing. Chapter twelve brings us to the basis of public health work, which includes publicity and education, bacteriology and immunity. Then the Public Health Laboratory and Epidemiology followed by the management of communicable diseases. Beginning with chapter twenty-four comes infections of systems of organs, digestive, nervous system, venereal diseases, tuberculosis, mental defects, vermin, food and food values. A chapter on sanitary engineering; nuisances, sewage disposal, water supplies, ventilation, industrial hygiene, child hygiene, camp sanitation, etc.

This furnished an outline of the contents of a valuable book which is written in such a manner as to interest all classes of people who have a care for health and sanitation, matters now occupying the attention of all classes of people, more in the future, probably, than in the past.

WHAT WE KNOW ABOUT CANCER

A Hand-Book for the Medical Profession
Prepared by a committee of the American Society for the Control of Cancer, American Medical Association Press, Chicago, 1918.

The American Society for the Control of Cancer has been in existence and working effectively for a number of years. The sole object of the society, at present at least, is the "dissemination of facts in regard to cancer to the end that its mortality may be reduced by a wider knowledge of the disease."

The effort represented by the present pamphlet has perhaps the most far-reaching possibilities for good of any single attempt to lessen cancer mortality undertaken in this country.

It is no longer necessary to argue the point that delay is the one great factor in cancer mortality. At least four-fifths of cancer deaths could be prevented by early recognition. The conditions necessary for recognition of cancer in ample time for cure are not ideal but distinctly practicable. Public education is one important pathway of improvement, but education of the medical profession itself is of equal if not greater importance. Statistical studies have shown that in the majority of cases the doctor has had the cancer patient, "under observation" over a year before efficient curative treatment is instituted. It is needless to state that during this year the majority of cases have changed from curable to incurable. As the pamphlet itself somewhat mildly puts it, "The conditions call for a far keener appreciation of responsibility for the mortality from cancer than now generally exists in the medical profession."

It is not possible here to abstract this pamphlet which is already so condensed. The general facts concerning cancer are outlined and then each important type and site of cancer is taken up in detail and the forms, symptoms, standard treatment, and results to be expected are outlined for each type.

The chief point we would make here is that if every medical man would study and seriously apply the teaching in this pamphlet, which he can read in an hour, the question of delay in cancer would be solved in so far as it is referable to the medical profession. The ultimate possible good obtainable from the wide spread dissemination of this pamphlet is so great that we would urge every possible means to get it into the hands of as many medical men of all classes as possible. It can be had from the American Medical Association, 535 N. Dearborn street, Chicago, for 10 cents. If you are a trained surgeon get it. It will interest you. If you are further afield get it and study and apply it. If you feel misgivings that some of your cases in the past might have been saved had you been more sure and acted more promptly (and who of us does not have such misgivings) get it. It will help you in future cases.

We would especially beg the assistance of boards of health, both state and municipal and of medical societies in distributing the pamphlet. It can be bought cheaper in quantities and sent out with your

(Continued on Adv. Page 20)

The Natural Coagulant of Blood

Thromboplastin Solution (Armour) is a specific hemostatic and is made from the brain substance of Kosher killed cattle. This brain tissue of cattle killed according to Mosaic law is uninjured and by the Armour process this "principle" which causes coagulation is extracted and supplied to the medical profession in standardized and sterilized form.

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as it supplies the necessary nourishment with the least tax to the digestive system and is agreeable to the patient.

Obtain the Genuine by Always Specifying "Horlick's"

BOOK REVIEWS

(Continued from Page 62)

mail matter with almost no extra cost or trouble. When such a simple means for such far-reaching good is in our hands it is a pity to let it lie neglected.

THE MEDICAL CLINICS OF NORTH AMERICA

Volume II, No. 4, Octavo of 303 Pages with 60 Illustrations. Published Bi-Monthly by W. B. Saunders Co. Price Per Year, Paper \$10, Cloth \$14.

This is a New York number. It is made up of clinics from the great New York hospitals. The first is a clinic by Dr. S. W. Bandler of the Post Graduate Hospital on Sterility in Women with especial reference to endocrin treatment. This is a subject that greatly interested the author, who has elaborated this subject in his work on Diseases of Women.

Dr. Walter Fimuel of the Neurologic Institute outlines a new Pleuriglandular Compensatory Syndrome which will be interesting to the neurologist. Then follows a series of heart conditions of much interest.

Dr. Leo Buerger of Mt. Sinai Hospital gives an interesting discussion on Cystitis, setting forth the importance of cystoscopic and x-ray examinations. Two discussions are of particular importance. The Hospital as a Health Unit, by Dr. W. H. Sheldon of Cornell University Medical College. Cases illustrating Diagnostic Problems, by Dr. A. S. Blumgartus of Lenox Hill Hospital.

THE MEDICAL CLINICS OF NORTH AMERICA

May Number, 1919. Published Bi-monthly by W. B. Saunders Company. Price Per Year, \$10.00.

This is a Baltimore number and contains clinics by several members of the Johns Hopkins Hospital teachers, including a clinic by Professor John Ruborah of the University of Maryland School of Medicine and by Professor Gordon Wilson of the same university. Johns Hopkins is represented by Lewelly F. Barker, Thomas Brown, A. L. Bloomfield and others of the faculty. An interesting clinic which will fairly illustrate what this number contains, is a clinic by Dr. Paul W. Clough on Pneumococcus Sepsis.

A TEXT-BOOK OF CHEMISTRY FOR NURSES

By Fredus N. Peters, A.M., Ph.D., Director of Laboratories and Professor of Chemistry and Metallurgy, Kansas City Dental College. Formerly Professor of Organic Chemistry, Hahneman Medical College. Il-

lustrated. Published by C. V. Mosby Company, St. Louis, Mo., 1919. Price, \$1.75.

This is an elementary book for nurses in training. The first chapter is devoted to a historical outline of the development of chemistry. A study is given to water and its composition in food products: The atmosphere, oxygen, sodium, chlorine, gases and some laws of gases. Then various combinations, how formed, and simple apparatus to illustrate the chemical facts of everyday life. The book seems well adapted for the use of nurses in hospital training.

COUNCIL PASSED

The attention of our readers is called to the "Council Passed" announcement of the Abbott Laboratories, in the advertising section. We bespeak for this advertiser the support and patronage of our members. This firm is doing splendid research work, and the scientific products which it is developing include medicinal chemicals never before made in this country.

The research laboratories of several universities are cooperating with the Abbott Laboratories, to aid them in presenting to the medical profession original, scientific ideas in medicinal chemistry.

Judging from the growth of the Abbott Laboratories, this original, scientific work is being appreciated by the medical profession.

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The Journal of the Iowa State Medical Society

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DES MOINES, IOWA, MARCH 15, 1920

No. 3

THE GALL-BLADDER FROM THE SURGEON'S STANDPOINT*

OLIVER J. FAY, M.D., Des Moines

Some of the everyday problems of surgery deserve frequent discussion by virtue of their everydayness, their universal interest. Among these problems, the surgical treatment of diseases of the gall-bladder must be numbered.

The question of the etiology of gall-bladder disease is perhaps of secondary importance to the surgeon since the time for possible prophylaxis is past when the patient comes under his care, and he has to deal with more or less advanced pathological changes. There is still some difference of opinion as to whether cholelithiasis is secondary to cholecystitis, or whether the presence of stones, due perhaps to the precipitation of certain chemical elements in the bile, is a predisposing factor in the development of the inflammatory process. Most of us have gained the conviction on the basis of clinical evidence alone that infection is the initial factor in all non-malignant lesions of the gall-bladder. We repeatedly see calculous processes in the gall-bladder unassociated with active inflammation, but in those cases in which we find gall-stones unassociated with active inflammation, we still gain the impression of former infection, an infection which has burnt itself out leaving only the stones. While the virulent infection gives rise to empyema and gangrene, the low grade infection is the primary factor in stone formation whether the guilty organism be the typhoid or colon bacillus or a strain of streptococci with a particular affinity for the gall-bladder.

While gall-bladder lesions are undoubtedly more common in the patient who has passed forty than in the patient who is still on the sunny side of that milestone, it must not be forgotten that operation is usually the last act in a drama which has been several, perhaps many years in evolution. Though the gall-bladder patient is most

often between forty and fifty years of age, he may be a young adult, even a child, or he may be aged. During the past seven years in which period a detailed case history of all patients coming under my care has been filed, there have been 722 gall-bladder patients. Of these only 134 or 18.2 per cent. were men. Among the cholelithiasis patients, the percentage of men is a trifle lower—there were 68 men or 18 per cent. of a total of 377 patients. They constitute a somewhat larger proportion of the cholecystitis patients—of 313 patients, 62 or 19.8 per cent. were men, and of the 16 patients with gangrene or empyema of the gall-bladder, one in four was a man.

Symptomatology and diagnosis stand in the forefront of any discussion of surgical lesions of the gall-bladder. Babcock has divided the symptoms of chronic cholecystitis into three stages: 1. The stage of cholecystic indigestion and toxemia, which may continue for fifteen or twenty years before the development of the second stage which is characterized by the movement of the calculi or by recurrent attacks of acute inflammation. This second stage, the stage of acute biliary paroxysms is chiefly observed between the ages of thirty-five and fifty-five. As the third stage, Babcock designates a final phase characterized by acute and dangerous complications such as empyema, or gangrene of the gall-bladder, acute pancreatitis, or other acute lesions. This third, he thinks, is most often observed in people between the ages of forty-five and seventy-five, and characterizes exceptions to the rule of late occurrence of such complications as rather unusual.

Babcock's classification is ingenuous, but in my experience diseases of the gall-bladder have not shown this obliging tendency to conform to any rule of age. A third of the cases of empyema operated upon have been in patients under the age of forty-five, two in women in the early twenties. I do not believe that acute infections of the pancreas are to be considered as always secondary to gall-bladder disease, but if I were to include in this third stage, the cases of acute

*Presented at the Sixty-Eighth Annual Session, Iowa State Medical Society, May 7, 8, 9, 1919, Des Moines, Iowa.

pancreatitis, an even greater percentage of my cases would fall below the forty-five year limit. It is not logical to assume that the life history of gall-bladder infections is so uniform; while a low grade infection of the gall-bladder may pursue the even tenor of its way through a fifteen or twenty year period of cholecystic indigestion and toxemia, a briefer period of recurrent acute attacks, a virulent infection may run a brief and dramatic course, the empyema or gangrene of the gall-bladder developing without any premonitory symptoms of chronic gall-bladder infection or acute attacks of gall-stone colic. It is the virulence of the infection and not its duration which determines pathology and clinical course.

Given a history of recurrent attacks of jaundice and gall-stone colic, the veriest tyro can make a diagnosis of gall-bladder disease—in fact, the patient himself is often prepared to make a diagnosis. Unfortunately, such a typical picture is the exception rather than the rule. Jaundice is present in about 30 per cent. of the cases. There is a history of pain in perhaps nine of every ten cases, but in many of these—Tilton says in 78 per cent. of them—the pain is not of the type which is usually considered characteristic of gall-bladder colic. Typical colic is due to obstruction of the ducts by the passage of a stone or by inflammatory changes; it is prone to occur at night, often four to six hours after the ingestion of the last meal; there are paroxysms of pain at varying intervals and tending to decrease in severity. The pain may radiate not only to the right scapula, but also to the left shoulder, the right hypochondrium, the anterior surface of the chest, the lumbar region, the thigh, the head and the neck. It is sometimes felt in the cardiac region and has been mistaken for angina pectoris. Instead of typical attacks of colic, there may be only epigastric distress of one sort or another—a “burning” in the stomach, pain on deep breathing as in pleurisy, pain on assuming the prone position, or on jarring the body.

Nausea and vomiting are quite common, particularly after the ingestion of rich and greasy food—a so-called qualitative dyspepsia—and attacks of migraine may occur. Most significant perhaps is the tenderness on pressure over the gall-bladder region. This tenderness is dependent upon inflammatory changes in and about the gall-bladder, and if the inflammation has subsided, it may be absent though stones are still there. With acute inflammation, very slight pressure may be enough to elicit pain; where the infection is sub-acute or chronic, deeper pressure only is painful. Defensive muscular rigidity in

the right epigastrium is secondary to inflammatory changes about the gall-bladder, and has the same significance as tenderness here.

In the absence of attacks of typical gall-bladder colic associated with nausea, vomiting, and icterus, we have no one symptom or group of symptoms upon which to base a definite diagnosis of gall-stone disease. The diagnosis will be one of possibility, at most of probability, to be confirmed by a process of elimination. Lesions of stomach and bowel may be ruled out with more than a fair degree of certainty by means of the test meal, examination of the feces, and the use of the x-ray. Percussion and auscultation, blood-pressure apparatus and x-ray have made it possible to avoid error in those rare cases in which gall-bladder disease mimics angina pectoris or a lesion on the pleural side of the diaphragm. Urinalysis, cystoscopy, and again the x-ray will enable us to exclude the right kidney as the source of trouble. Appendicitis is usually to be differentiated by the point of greatest tenderness. It must not be forgotten, however, that a diagnosis of pleurisy, chronic appendicitis, nephrolithiasis or pyonephrosis does not necessarily rule out a gall-bladder lesion. Deaver found pathological changes in the appendix necessitating its removal in 80 of a series of 159 gall-bladder operations *i. e.* in 50 per cent. Judd has pointed out the frequent association of duodenal ulcer with cholecystitis; in our own series of 313 consecutive cases of cholecystitis, four have been associated with duodenal ulcer. One case in my experience was rather unique because of the multiplicity of complications: an old, right-sided pleurisy, an enlarged gall-bladder tensely filled with tarry bile and associated with marked enlargement of the liver, a chronically inflamed appendix, and a pyonephrotic right kidney containing sixteen ounces of pus and five very large, irregular stones.

Empyema and gangrene of the gall-bladder represent abdominal emergencies and as such, diagnosis is often secondary to operation. Aside from the usual symptoms of peritoneal invasion, localized pain and tenderness are generally acute, the defensive rigidity marked. Symptoms of biliary obstruction may be entirely lacking if the attack is of sudden onset, but in most cases there is a history of biliary colic or at least of epigastric distress covering a period of weeks, months, or years.

Most malignant tumors of the gall-bladder are carcinomata; sarcoma also occurs but it is very rare. There have been three carcinomas of the gall-bladder in this seven-year period *i. e.*, 0.4 per

cent. of all gall-bladder lesions operated upon during this period. This probably does not represent the true incidence, however, for it does not take into account those exploratory operations in which an inoperable carcinoma of the liver has been found for the gall-bladder is a possible, even a probable point of origin in these cases. Judd states that malignant disease of the gall-bladder is always secondary to gall-stones, but I believe that we should say usually rather than always. In one of our three cases, carcinoma developed under the clinical guise of an acute cholecystitis, and no stones were found at operation. Carcinoma of the gall-bladder probably never gives rise to symptoms which would make differentiation possible before operation. Where it is primary in the hepatic or common duct or in the head of the pancreas, a steadily deepening icterus may suggest malignancy.

So-called idiopathic biliary peritonitis deserves passing mention because of its rarity rather than because of its practical interest. I have a single case to report. A man of fifty was brought into the hospital suffering acutely although he had had a grain of morphine. Tenderness and rigidity in the right epigastrium were marked. At operation, the abdomen was found filled with bile-stained fluid. Because of the patient's precarious condition, drainage was placed down to the biliary tract, and the operation terminated as rapidly as possible. The patient died within a few hours, and a most painstaking post-mortem examination by a trained pathologist failed to reveal any perforation in the biliary tract.

Since the gall-bladder patient usually comes to the surgeon in search of relief, the latter is not often called upon to decide whether or not to operate for symptomless gall-stones, if such there be. We need not defend the statement that the treatment of gall-stones and active infections of the gall-bladder is surgical. We have passed the stage when the dissolving of gall-stones or their dietetic treatment can be given any but amused consideration. To the internist we leave the treatment of cholangitis and hepatitis. The surgeon faces the question not of whether, but of how to operate—shall the gall-bladder be removed or drained? What are the criteria upon which he should base his decision?

While the idea that the gall-bladder had importance as a reservoir has lost caste, we recognize that it is still a useful member although we do not know whether its function is only the control of bile pressure within the ducts, or whether it in some way also modifies the character of the bile. The gall-bladder is then to be sacrificed

only when its presence is a potential menace. The question of when the gall-bladder is to be so considered must be answered at the operating table on the basis of the pathology found. I believe that the gall-bladder the walls of which show no gross pathological changes and the cystic duct no obstruction should be drained. On the other hand, the gall-bladder which, judged by gross evidence, "cannot come back," should be removed. As *prima facie* evidence of permanent impairment, we may consider: 1. thick, opaque walls, the result of chronic inflammatory changes; 2. narrowing or obstruction of the cystic duct, or ulceration of the duct which may result in stricture; 3. hydrops, if the walls of the gall-bladder are markedly thinned; 4. ulceration of the gall-bladder due to overdistention or the pressure from large stones; 5. gangrene of the gall-bladder, if the condition of the patient permits; 6. papilloma or malignancy if the neoplasm is limited to the gall-bladder.

Drainage is indicated in the presence of an acute cholecystitis, in cholangitis, in acute hepatitis, in cholelithiasis with only slight changes in the walls of the gall-bladder, and in acute pancreatitis. Cholecystostomy is also the operation of expediency, though not of choice, in any of the conditions ordinarily calling for cholecystectomy when the condition of the patient demands the briefest possible operative procedure.

Every surgeon has been struck by the frequent association of gall-stones and myoma of the uterus—a coincidence which is not difficult of explanation when we remember that fibroids, like gall-stones, are most frequent in women approaching middle life. I believe that it is also a matter of common experience that these patients do not bear well the combined operation of myomectomy or hysterectomy and drainage or removal of the gall-bladder. In a majority of these cases, operation should be limited either to the gall-bladder or the uterus, depending upon which is the more urgent lesion. A second operation is always to be regretted but it is also always to be preferred to a single operation with a prohibitive mortality.

It is undoubtedly true that the relief obtained either from cholecystectomy or cholecystostomy is not always complete, that it is often far from that. Surgeons of equal ability and experience advocate the one or the other procedure because in their personal experience it has given a higher percentage of relief. Perhaps the discussion may best be summed up by saying "You will if you will, you won't if you won't, you'll be damned if you do, and damned if you don't."

Discussion

Dr. William Jepson, Sioux City—In view of the classical termination of Dr. Fay's paper I have a little timidity in entering into discussion of the subject, for I am quite sure that what the author has said will apply to me. The burden of the paper is the question as to whether we should do a cholecystostomy or a cholecystectomy, the former being intended for drainage, the latter, putting it briefly, to obviate many of the unpleasant sequelae that at times follow operations on the gall-bladder. Dr. Fay has so clearly pointed out the indications for cholecystostomy as well as for cholecystectomy that I have little to say except that I support his statements in every respect. And now, simply to show that I am not trying to flatter my friend and thus mitigate the application of his remarks to me, I will say that, having given the subject considerable attention, some ten years ago I took the matter up at the Congress in Budapest for the reason that in a country with which for several years we have not had the pleasantest relations there had been a growing tendency to ablate the gall-bladder. And this sentiment spread, as I followed it in reading German, French and English literature, until it reached France and even England. And so on that occasion an English surgeon stated that when operating on the gall-bladder one should always ablate it, because it had no function greater than that of the appendix, and hence there was no reason why it should not be removed. This conclusion is, however, open to debate. I quite agree with Dr. Fay that there is a serious question as to whether or not the gall-bladder has a definite function. I believe it does, and in support of this statement will say that in experimentation on dogs for the purpose of determining the effect of removal of the gall-bladder, it has been found that there is an attempt by nature at restoration of the gall-bladder. Though the organ is not as large as it was before, it becomes an appreciable reservoir. I do not mean now to claim that it becomes large enough to be capable of storing a dram or two of bile, but it is of sufficient size to act in a sense as a safety valve, or as a valve on a pump in making a continuous flow. Along this line I would state that some ten or eleven years ago experiments were conducted under my direction with a view to determining whether any changes took place as a result of removal of the gall-bladder. While it was found that changes did take place, they were not sufficiently definite to allow us to base practical conclusions upon them. These experiments were confined to eight dogs. At the time the cholecystectomy was done sections of the liver were removed and microscopic studies made, and at the end of eight months to a year, when the dogs were killed sections reasonably close to the point where the original sections were removed were taken out and examined and all showed a round-celled infiltration. You may say that this does not amount to anything when one can remove a gall-bladder with no symptoms developing

in two or three years. The liver will tolerate a great deal of abuse over a long period of time, but I would cite the changes which have occurred in livers as a consequence not of a drink of whiskey taken yesterday, but of the drinks of whiskey which were taken over a period of many years.

Chairman J. F. Herrick—This subject, especially as to the advisability of cholecystectomy or cholecystostomy, is a very important one, and it has been mentioned pro and con. I feel that an expression from those who have come to some conclusions as a result of their observations would be worth a great deal to this Society, and we would be glad to hear from them.

Dr. C. E. Ruth, Des Moines—I was delighted to hear Dr. Fay take the stand he did with reference to the advisability of ablation of the gall-bladder or draining it, and the implication that the gall-bladder really has a function. Whether or not that function is simply to maintain the tension of the biliary circulation, I do not know, but believe that to be a factor. Certainly the gall-bladder is essential, as Dr. Jepson has said, or nature would not so persistently attempt its reformation after removal, as has been proven by experimental work on the lower animals, and by subsequent operation or by postmortem on old cholecystectomy cases. Any surgeon can drain a gall-bladder if it is of considerable size and is not buried in adhesions. Gall tract surgery in an obese individual with the gall-bladder and its ducts, omentum, stomach and duodenum buried in adhesions and firmly blended in one mass up under the liver will tax to the utmost the skill of the best surgeon. Unfortunate is such a person in the hands of an incompetent surgeon for he will not do a complete operation, will not know whether the hepatic or common duct is patent, and his patient will die or be worse than before the operation because the adhesions will be more extensive than before, rendering the necessary second operation more difficult than the first. These are the cases in which two or three or more operations are required in a large per cent. of cases before permanent relief is obtained. I have seen such cases with previously unobserved stones packing the hepatic duct from end to end. I have no sympathy with those surgeons who continually belittle the efforts of others and put themselves forward as the only ones able to deal with such cases. I am glad to see the boys that I used to try to teach doing as credible work as anybody can do along many lines, but the thing is to recognize our limitations as soon as possible and do thorough work with whatever is undertaken and not forget that gall tract surgery is often as difficult to do well as any other abdominal work. One must make the work complete; not necessarily by the ablation of the gall-bladder but saving it when it can safely be done. We must make sure that the hepatic duct is not obstructed, and that the common duct is patent into the duodenum.

Dr. B. L. Eiker, Leon—I would like to say just one word. Some of these cases have to be operated on

the second time and as has been stated here today many of the patients are from forty to sixty years of age. At times the second operation is in the nature of an emergency, and has become necessary by reason of imbedded gall-stones. Drainage, therefore, becomes a matter of prime importance, and if the gall-bladder has been left in the first operation it can again be drained and the patient relieved with the minimum amount of danger to life. On the other hand, if the gall-bladder has been removed in the first operation the second operation must of necessity deal with the hepatic or common ducts, thereby rendering the operation more difficult and the results more hazardous. In other words the first procedure gives your patient two chances while the latter procedure gives but one.

APPLICATION TO CIVIL PRACTICE OF THERAPEUTIC PRINCIPLES ESTABLISHED IN TREATING WAR INJURIES TO THE THORAX*¹

J. L. YATES, M.D., Milwaukee, Wisconsin

More than half of the deaths from war injuries to the chest occurred within the first two days and were the result of anatomic destruction, hemorrhage and shock. After this initial period the largest proportion of deaths and the greatest degree of disability resulted directly or indirectly from pleuritis.

Pleurisy has been the most frequent indication for intra-thoracic intervention in civil practice. Pleuritis has been the greatest obstacle to success of thoracotomy undertaken for the relief of other diseases.

The factors concerned in preserving the structural and functional integrity of the pleura cover virtually the entire field of thoracic surgery. They involve general and local resistance, tissue repair and the ultimate effects of this repair upon respiration and upon both pulmonary and systemic circulations.

The most valuable single contribution that military thoracic surgery can make to civil practice will be in helping to promote therapeutic means, to restrict the intensity and duration of pleural irritation, and to limit its extent.

Since the problem is important to all clinicians, the discussion will be limited to the reactions incidental to acute pleural irritation and to means of protecting resistance and thereby reducing ultimate disability.

Consequent upon pleural irritation, there is a prompt profuse serofibrinous exudate. The amount, and later the character, of the exudate is determined by the location and the size of the area involved primarily and by the intensity and duration of the irritation. In general the rate of effusion exceeds the rapidity of absorption, so that an excess of fluid appears in the pleural cavity. This excess fluid causes a corresponding degree of pulmonary deflation.

There is a tendency for the process to propagate itself. The excess serum as it is diffused from the area of reaction carries with it any irritants free upon the surface. Moreover a serous exudate is itself an irritant and is irritating in proportion to the number of cells, and the amount of fibrin or fibrinoplastic substances it contains².

There is in consequence a tendency for an increasing amount of fluid to appear in the pleural cavity and this in turn to cause greater pulmonary deflation and a wider separation of the pleura surfaces with consequent formation of more dead space. In rare instances this process can produce, in less than twenty hours, an effusion sufficient to cause complete homolateral atelectasis and a fatal embarrassment to the circulation.

Usually the reaction is self-limited through an isolation of the site of most intense irritation by a formation of fibrinous adhesions to contiguous serous surfaces and by meeting the excess serous exudate with a less intense defensive reaction and more rapid absorption.

This is the first step in natural methods of checking the dissemination of irritants and thereby restricting the extent of inflammatory reaction. It should be recognized that the elimination of irritants is accomplished not only by sealing up the affected areas with fibrin, but also the chief sources of the irritants, cells or bacteria are enmeshed by the exudate at the same time.

Another step, limitation of motion, also to restrict dissemination is taken simultaneously. Pain reflexly inhibits the depths of inspiration chiefly by limiting costal excursions. This limitation is inadequate, if the irritant is intense or protracted. In that case diaphragmatic contractions incidental to respiration or to coughing must be more completely controlled. A paresis or paralysis of the diaphragm on the affected side is produced by or by some form of edema or more advanced reaction in the subpleural part of the nerve trunk. At this stage the loss of motion is not due to muscular degeneration.

*Read before the Annual Assembly of the Tri-State District Medical Society held at Rockford, Illinois, Sept. 1, 2, 3, 4, 1919.

1. This report is based upon work conducted in France and being continued in the Columbia and County Hospitals and at the University of Wisconsin with financial assistance from the Research Division, American Red Cross.

2. This assertion is based upon experimental observations made by Dr. W. S. Middleton with the collaboration of Dr. Robert Drane and upon observations made in treating the wounded.

The third step in defensive reaction, a maintenance of increased local blood supply is defective and explains the limited resistance of the pleural cavity. As effusion increases, pulmonary inflation decreases. Normal blood supply of the lung and visceral pleura demands at least a normal degree of inflation. Moreover irritation of the visceral pleura causes not only a serous, but also a subserous reaction and the cortical pneumonitis thus produced becomes an additional block to pleural blood supply where it is most needed.

The significance of these changes becomes evident with the realization that the powers of resistance of the entire pleural cavity are centered mainly in the visceral surfaces. It seems that pleural resistance diminishes more rapidly than the increasing disability of the visceral layer might indicate.

Therapeutic agencies to reinforce natural defenses are easily determinable. They must assist in the elimination of irritants, co-operate in reducing dissemination of irritation and most important of all, prevent deflation and consequent reduction of blood supply to the visceral pleura.

Practically this amounts to prevention of accumulation of fluid and the administration of opium in full physiological doses to reduce metabolism and consequently the demands for oxygen.

The chief question centers about the methods of drainage. Unlike the general peritoneal cavity, the general pleural cavity can be drained and usually the drainage can be maintained so long as there is fluid to escape.

No complicated apparatus is required. A 15 F. male catheter attached to a flap valve suffices.

Inspiration alone increases intra-thoracic pressure enough to cause fluid exudate to escape. The flap valve permits this outflow without resistance and also prevents any return of air. At the same time pulmonary deflation is prevented and pulmonary inflation augmented. This automatic system is preferable in acute pleurisy to forced suction through the drainage tube or to abnormally increased intratracheal pressure however it is induced. Physiological readjustment is safer and more accurate if it develops gradually.

Attention should not be focused upon what is desirable to accomplish to the exclusion of what is essential to avoid. Treatment must be determined by the liability of late untoward effects as well as by immediate dangers. There are four common complications to be considered; chronic diffuse adhesive pleurisy, chronic cortical pneumonia, permanent disability of the diaphragm and myocardial irritability.

Chronic Adhesive Pleurisy—Serous surfaces go through definite phases in healing. At first adhesions are inevitable and desirable. After this period early disruption of the adhesions by *active* motion accomplishes either their disappearance or stretches them to the point of not impeding natural movements of involved surfaces. Permanent adhesions of this type do not interfere with respiration and are of consequence only through reducing resistance if another pleurisy should occur. The more generalized and the more fixed the adhesions the greater the restriction of respiratory movements; the more marked the dyspnoea of exertion and the greater the danger of subsequent tuberculosis.

The liability of this handicap to follow pleurisy has been underestimated. A simple uninfected hemothorax of less than 1000 c.c. has caused a complete obliteration of the pleural cavity. Pleural effusions are not less irritating than blood and should be considered as likely to have induced an equal degree of diffuse reaction which, if neglected, can result in the most unfavorable type of chronic adhesive pleurisy.

Chronic Cortical Pneumonia—The acute superficial pneumonitis due to irritation of the visceral pleura is prone to organization. The processes of repair in the internal surfaces of the lung are identical with those on the pleural surface. Exudates within air cells become more permanent as they persist and by their persistence handicap respiration and have a potentiality for damage similar to chronic adhesive pleurisy.

Permanent Disability of the Diaphragm—Pryor has called attention to the frequency of this sequel to pleurisy and discussed its causes. It has great bearing upon subsequent welfare and is quite possibly a big factor in explaining the delayed and incomplete recoveries which followed expectant treatment of thoracic injuries. It is more crippling in the degree of consequent dyspnoea occasioned than are diffuse adhesions.

Inactivity of the diaphragm is often accompanied by decreased costal excursions on the same side so there is a very material interference with respiration. This apparently is due to some disturbance in the central nervous system as it accompanies the transient paralysis occasioned by blocking the phrenic with cocaine in the cervical region. Capp's observations upon the sensory fibres in the phrenic nerve offers an explanation. Pryor suggested that the diaphragmatic disability might be due to a chronic myositis. This is true in certain instances, at least, and in one, microscopic evidence pointed to a direct extension from a chronic empyema.

Myocardial Irritability—Tachycardia is frequent, often persistent, and of proportion to dyspnoea. Early activity is essential to a good recovery, but when rapid, and particularly when rapid and irregular action of the heart is present, that individual must resume activities gradually to avoid serious damage to the heart.

Granting early recognition of pleuritic effusion, a single aspirative may suffice. It has the disadvantages of more rapid evacuation and the benefit is usually transient. A catheter drain can be introduced with very little more distress than is caused by inserting an aspirating needle. The relief is sufficiently more certain to justify its use as soon as a diagnosis is made.

The location for the drain and its insertion are best controlled with a fluoroscope. Usually the lower level taken by the lung at the end of inspiration near the mid-axillary line is the most advantageous point. As it may be desirable for the catheter to remain in position for several days, it is expedient to provide a flap to cover its track when it is withdrawn. The skin should be dislocated over the point selected, held in this position and infiltrated with a local anesthetic. Infiltration is then made gradually deeper to assure anesthetizing the parietal pleura. The needle is then pushed through the pleura and the piston of the syringe withdrawn to gain desirable confirmation. A small slit in the skin makes introduction of trochar and canula easier. As soon as the trochar is withdrawn, a catheter is inserted. This should fit the canula accurately enough to prevent entrance of air, but not so snugly as to interfere with withdrawing the canula. A fluoroscope is of aid in seeing that the catheter is properly placed. The tip must be free in the pleural cavity, but should not be in contact with diaphragm or lung. This position is maintained by fixing the catheter to the chest with narrow strips of adhesive plaster.

After care is equally simple. Until the temperature is down, the individual should be recumbent upon the unaffected side, and kept deeply under opium. As soon as the temperature stays normal, sitting upright is desirable and thereafter increasing activity. When the lung is fully distended, the tube should be removed as some discharge will persist as long as it is in place. It is quite immaterial if it be removed too soon. Reinsertion is so simple. Permitting it to remain too long is serious as this causes dense adhesions.

Progress should be controlled with fluoroscopic examination and by skiagrams to guard against overlooking an encapsulated empyema. As soon as possible, with due regard to myocardia protec-

tion, breathing exercises should begin and physical activity increased. This will assure complete recovery with the least delay.

This form of treatment, which is merely a continuation of the teachings of Bowditch, can scarcely be classed as surgical. Properly used, it should reduce the incidence of and the death rate and disability resulting from empyema.

The same principle of one way drainage is applicable in establishing primary drainage when a thoracotomy is performed. If a pleurisy is already present or if more than the usual post-operative pleural reaction is probable, this simple procedure gives a wide margin of safety.

Conclusions—Prevention of pulmonary compression and deflation is the most essential feature in treating acute spontaneous pleurisy with effusion and in minimizing the dangers of pleuritis after thoracotomy.

Pulmonary inflation can be attained by the early application of one way air tight drainage.

The serious late complications of chronic diffuse adhesive pleurisy and of diaphragmatic inactivity can be to a large extent, obviated by this procedure if supplemented by the use of active motion as established in treating acute inflammation in other serous cavities.

THE VALUE OF PUBLIC HEALTH EDUCATION

E. G. BIRGE, Epidemiologist

The following letter was sent to Dr. G. H. Sumner, secretary-executive officer of the Iowa State Board of Health and referred to me for action. It is so remarkable in its clarity and carries such an important lesson to the citizens of the state that it is given in its entirety, only names and places being changed. It is possibly the best example of what public health education can be made to mean for the people of the state that has come through this office in a long time.

August 29, 1919.

Dear Sir:

'As I write this letter I am lying in bed trying to recover from typhoid fever and I realize as I never did before what a dreadful disease it is. On our report from Iowa City we are told to write to you if there are several cases which seem to start from one source.

Well last summer in L.—in the F.—home a small girl had typhoid fever. Shortly after their next door neighbor had it and almost died. About the same time the grandfather of this child who had visited in L.—when the child was sick was stricken with the same disease. So much for 1918.

March 1, 1919, the F. family moved to a farm in M. township south of L. In a short time a hired man arrived from another state. In a few weeks he was stricken with typhoid. Shortly after this a brother of Mrs. F. from another part of the state who had visited in the home started with typhoid. Soon after this a baby was born at the F. home and a hired girl arrived from another city. At the same time I started to wash this new baby as we are very close neighbors. A few weeks later the hired girl and myself started sick on almost the same day. We both are in bed now with typhoid fever. There had not been a case of typhoid fever either on the farm where F.'s are living or where we are living in the last twenty-five years. Now here are seven cases of typhoid which seem to have originated in the F. family and I wish to goodness you would find the source of infection. Aside from the first child we are all in our prime as to age and are all working people. Allowing three months of idleness to each one it means a loss of eighteen months labor besides the chance of death and the expense of doctors and nurses. While washing the baby at the F. home I never drank any water but had my hands in water and did not sterilize them afterwards. If some one in this home is a typhoid carrier I wish you could find it out as we are such close neighbors. Dr. B. is the M. health physician and would be pleased to have your assistance. He has been trying to determine the quality of the water. I hope this letter has not been written in vain even if it is poorly written. As I lie here I keep thinking what a terrible thing all this unnecessary sickness is.

Yours respectfully,
Mrs. F. S.

It is seldom that a person has the amount of evidence to go on that is contained in the above letter, whether it is given to us by a physician or layman. All the necessary data is contained in it, not only as to the cases and the approximate time of their taking sick, but the economic side of the disease is taken up in a manner that is astonishingly clear and gives even those of us that are familiar with it food for thought. If every citizen of the state would take the same amount of interest and the pains to get the facts in cases of sickness that the above writer has it would not be long before some of our epidemic diseases would be so reduced that they might be termed eradicated and it would be possible to make a concerted drive on any disease in the state with a fair chance of getting it under complete control.

With the evidence at hand and with the results of the water analysis available we felt sure that we were dealing with a "carrier." With this in mind we obtained specimens of excreta from the various members of the family and made bac-

teriological examinations to determine the presence of typhoid bacilli.

The letter reminds one very much of the evidence given in the history of that famous carrier "Typhoid Mary" so that we were hardly surprised when we recovered the typhoid bacillus from the urine of Mrs. F.

The question then came up as to how to handle the matter. It is manifestly impossible to isolate these carriers, either from their point of view or that of the general public. They are not sick in the accepted sense of the word and to prohibit them taking part in gainful occupation is a hardship not only on themselves but also on the general public, since it is the general public that in the end has to pay for idleness, enforced or wilful. Isolation was considered out of the question and was also considered inadvisable even if the patient had been willing to attempt it for any length of time.

The measures adopted were along the line of personal hygiene and general sanitation as will be seen in the recommendations following. The necessity of these measures can be readily understood by anyone that has had any experience in this sort of work. It was deemed inadvisable at this time to absolutely prohibit the sale of dairy products from this farm as it was realized that to do so would work a certain hardship on the family and in the absence of any evidence that the disease had been spread beyond the confines of the farm itself through the agency of these products it was not thought necessary to prohibit their sale provided certain sanitary requirements were lived up to. No more cases should develop from this source if the full cooperation of the patient and the health officer of that community is obtained.

It must be remembered that this condition may be stubborn in yielding to treatment and that during the weeks or months necessary to definitely clear it up the carrier is always under suspicion, yet it must be also remembered that the carriers themselves can do a great deal towards minimizing the danger. The health officer can also do much towards lessening the danger by the administration of anti-typhoid vaccine, a case such as this in any community can be made a great help towards the elimination of typhoid fever in that community through judicious publicity and a campaign for better sanitary measures and vaccination of the individuals of the community.

The recommendations in so far as they relate to personal and general hygiene are as follows:

1. That the patient be treated with a view of clearing up the urinary condition and that after one

month's treatment specimens be submitted for examination, until two negative cultures be obtained.

2. That all excreta be so disposed of that they will not be a menace to the community or family, i. e., disinfected.

3. That the sanitary condition of the family's privy and water supply be carefully gone into and any unsanitary conditions be corrected at once.

4. That no milk or milk products be sold in the community from this farm, unless it can be proved that the patient has absolutely no connection with the handling of milk, or milk containers, and does not play any part in the production or sale of these products in any way.

5. That the patient be instructed that in her present condition she is dangerous to the other members of the family, so long as she prepares or takes part in the preparation of food, or handles either food or cooking utensils which might become in any way contaminated.

6. That the patient be instructed that personal cleanliness will materially minimize the danger of spreading the infection and that cleanliness of the hands is of paramount importance, and that after using the toilet the hands should be thoroughly and carefully washed.

The above recommendations apply not alone to this particular case but to all persons that have had typhoid fever, have attended typhoid cases or are known to be carriers. After all it is only applying in a practical way the first principals of common decency and sanitation. Yet it is surprising how careless the human being may become, usually thoughtlessly it is true, but the results are quite as bad as though that carelessness was malicious.

Every case of typhoid fever represents a short circuit between the alvine discharges of one person and the mouth of another and when this fact is realized by all of us, it will be possible to get rid of much typhoid now due to carriers, or to cases convalescing from the disease.

XEROPHTHALMIA*

RALPH H. PARKER, M.D., Des Moines

Xerophthalmia is the saddest and most distressing sequelæ of trachoma. It occurs during the cicatrization period of the course of the disease. The ocular mucous membrane becomes atrophic, dry and opaque. Tears are absent. The patient is miserable, with a constant sensation of dryness in the eyes. The eye ball and lids become adherent. The sight fails. In spite of treatment the

vision grows less and less until finally the eyes pass on to eternal night.

A short review of the course and character of an attack of trachoma will help to classify this condition, which is rare.

Trachoma, as a rule, is not an acute infection. It comes on insidiously, and it may be months before the patient complains about eye trouble. The acute exacerbations occurring during the course of the disease are caused by an infection of the trachomatous eyes with the Koch-Weeks or the Diplo-bacillus.

In the early hypertrophic stage of trachoma the papilla of the palpebral conjunctiva enlarge. Granules of lymphoid tissue form in the fornix which gradually extend forward into the conjunctiva of the lid. The inflammation extends into the deep layers of the mucous membranes of the lid until the cartilage is reached. The inflammation of the cartilage causes it to thicken. This thickening of the lid is followed by serious results.

The constant pressure of the roughened and infected lid upon the eyeball causes an infection of the conjunctiva covering the sclera and cornea. It is to be remembered that the epithelial layer of the cornea belongs embryologically to the conjunctiva. That is, the bulbar conjunctiva covers the cornea as well as the sclera. During the early hypertrophic stage of trachoma infiltration and the formation of small blood-vessels may occur in this epithelial layer. Corneal ulcers may form. Up to this time the course is one of mucous membrane hypertrophy. The clinical picture from now on is one of cicatrization of the conjunctiva.

If the course of the disease is favorable the roughened hypertrophied mucous membrane becomes smooth. Cicatricial bands form in the tarsal conjunctiva. The islands of hypertrophied tissue between them absorb and the mucous membrane loses its roughness. The pannus may disappear by reabsorption or it may be transformed into connective tissue. It is the milder cases or those that come under treatment early that are thus cured.

In the severe cases a series of cicatricial changes may develop. The contraction of the conjunctiva of the upper tarsus causes a bulging of the cartilage outward. The lid margin is carried farther and farther in. The short inner angle of the lid disappears. The cilia point inward and downward and keep the eye constantly irritated. Along with the atrophy and change to scar tissue of the conjunctiva is a dryness caused by

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the destruction of the goblet-shaped mucous secreting cells of the mucous membrane. The cells making up Henle's glands become scar tissue. Krause's glands and the lachrymal gland take on the same hypertrophy followed by atrophy as the conjunctiva in general. The openings of these glands become closed from the scarring and atrophy. Tears cease to flow. Posterior symblepharon form, which may involve the entire mucous membrane surface of the upper and lower lid. A horny change takes place in the superficial cells of the epithelium covering the cornea, which becomes thickened and epidermoid in appearance. Leber describes this change as follows: "The uppermost layers of epithelium cells of the cornea undergo keratosis, the protoplasm of the succeeding layers containing abundant granules of keratohyalin. In consequence, the epithelium appears thickened, whitish and cloudy." The eye does not tear, vision is gone, the picture of xerophthalmia is complete.

I wish to report the following case:

Mr. J. R., age seventy-four. He served in the army during the Civil War. I saw him first in July, 1917. He complained of a dryness and irritation of the right eye. Both eyes at this time were in the cicatricial stage of trachoma. Vision in the right eye was one-tenth. Left eye six-tenths. There was a turning in of the inner margin of the right upper lid so that the cilia were constantly brushing the eyes. I transplanted the ciliary line upward, which shows the scar of the operation in picture No. 1 and No. 2. The result aside from cosmetic was good.

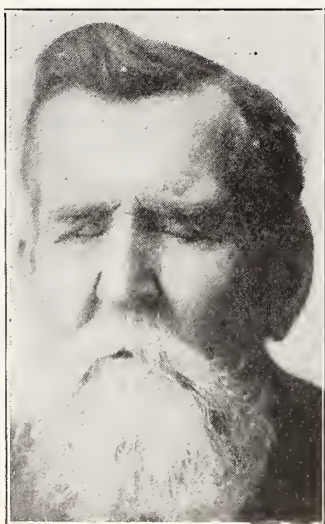


Figure No. 1

I treated the right eye by emollients for three months. The atrophy of the mucous membrane increased, symblepharon formed, and there was no improvement of the dryness and burning.

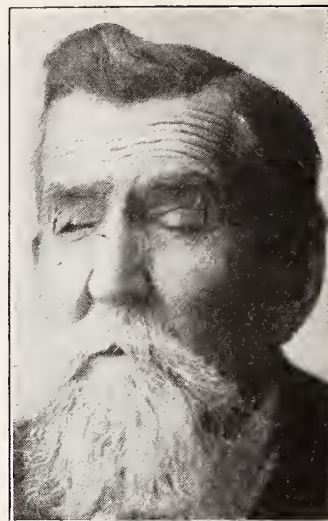


Figure No. 2

The condition of the left eye during this time seemed to remain stationary. The one important symptom occurring in both eyes was the constant complaint of dryness and discomfort. Following this I saw him again three months later. He had been treated by another physician who had made a plastic operation upon the left upper lid. The operation was successful. The right eye was now blind, tearless, complete posterior symblepharon of the upper and lower lid had formed. The cornea was opaque, the eye could not be opened on account of the adhesions. With the left eye his vision was fingers at five feet. At this time he had a corneal ulcer of the left eye which healed by hospital treatment. The treatment for the xerosis was continued for three months, when the eye lost all remaining vision.

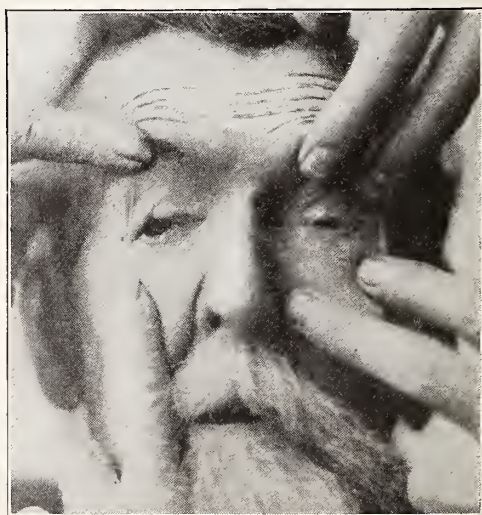


Figure No. 3

These photos of the patient were taken in April of this year. In picture No. 1 the face was in repose. The patient kept the eyes constantly closed. There was no photophobia. He seemed to have less of the sensation of dryness with the lids in this position.

In picture No. 2 he is attempting to open the eyes. The eyes and lids are so adherent that it is not possible for him to pull the lids apart. Picture No. 3 shows the eyes forcibly opened. The right upper lid shows the scar of the transplant operation. The cornea is opaque. The attachment of the lower lid of the eye is complete. The upper has a small space in the center where the margin of the lid is free. In the left eye the stenosis of the palpebral opening is very near complete. The eye is bound to the lid along the entire border. This has been accompanied by an atrophy of the membrane until the palpebral opening is no larger than a lead pencil. Picture No. 3 gives a very good idea of the extreme shrinking that has taken place in the mucous membrane.

Xerophthalmia may follow burns, ocular diphtheria, and pemphigus, as well as trachoma. The term is not to be confused with xerosis which refers more to the dryness of the eye in these cases. There is another group of cases in which exerosis is an accompaniment or is secondary to a general condition of under nourishment. They recover if the condition underlying them can be improved. Neisser found a bacillus in cases of xerosis resembling the bacillus found in diphtheria, which he named the bacillus of xerosis. He presumed this was the cause of the disease but now it is considered an accompaniment of atrophic conditions of the mucous membrane of the eye but not the causative agent.

The dryness of the eye in xerophthalmia has been explained in various ways. I wish to quote the words of Dr. Ernst Fuchs in reference to this condition: "What part does the lachrymal secretion play in xerosis? The real cause of the dryness of the conjunctiva is not, as has been believed, the deficiency of tears. In the beginning of the disease, as long as only small isolated spots of the conjunctiva are xerotic, we often find actually an increase in the lachrymal secretion. Per contra, xerosis of the conjunctiva has never been known to occur after extirpation of the lachrymal gland. The real cause of the dryness of the conjunctiva is rather the fact that the tears do not adhere to it. Nevertheless it is true that in advanced xerosis the lachrymal secretion diminishes, and may even disappear altogether, for, owing to the marked shrinking of the conjunctiva, the secretory ducts of the lachrymal gland, which empty along the upper retrotarsal fold, become closed, and as a result of this, atrophy of the gland itself ensues. The patients, when led to weep by their melancholy state, feel only a sensation of fullness in the eyes; they cannot shed tears. Arlt found in a case of xerosis obliteration of the efferent ducts of the lachrymal gland produced by the great shrinking of the conjunctiva,

the lachrymal gland itself being diminished to one-third of its normal volume and transformed into a tissue resembling fat. In that form of xerosis also which occurs in connection with keratomalacia there is a striking deficiency in the lachrymal secretion; but here probably we have to do with a nervous disturbance, namely, with an absence of the reflex lachrymal secretion, due to depression of the general nutrition and particularly of the nervous functions."

The prognosis of these cases is bad. This patient during the entire course of the disease was under medical care. He went the way of all the rest. The disease progresses until vision is lost. The most distressing symptom, the dryness, can be treated with oils, milk, cream, etc. This patient got the most relief from the use of cream and vaseline in the eyes.

The old saying "An ounce of prevention is worth a pound of cure" applies well to these cases. The program put on by the American Medical Association for the education of the laity as to the nature and contagion of trachoma is far-reaching. The story of the work of the members of our profession among the mountain whites of the south or the natives of Egypt or India makes very interesting reading and is doing much toward the eradication of trachoma among these people. The thousands of emigrants that are turned back at the Mediterranean ports infected with trachoma save other thousands on these shores from the contraction of the disease. It is intensive work along these lines that will decrease our trachoma cases.

Discussion

C. P. Cook, Des Moines—I enjoyed Dr. Parker's paper very much. I would not attempt to add anything to that form of xerosis of which the Doctor speaks, but I would like to touch lightly on another form of xerosis which affects the epithelium only, and which does not leave any cicatricial changes in the process of the disease, and is not due to a local but to a constitutional condition. I have seen very little of this form here, but a great deal of it in New Orleans when I was in hospital work there. In Louisiana especially there is a great deal of scorbutus. They have two seasons of the year in which it is prevalent. One is after the spring vegetable season—they only raise vegetables there in the spring. After they are gone, along in August, they have a period, especially in the country, when there is a great deal of scorbutus. Then sugar cane comes on and it clears up, and along in February they have it again. During these periods there is a wave of xerophthalmia—or xerosis, as they call it there—which merely affects the epithelium of the eye. They complain of a dryness and itching, and there appear

little foam like deposits on the surface that do not wash off. These are not on the surface but deposits in the epithelial layer. This wave of xerosis follows the wave of scorbutus very closely, and if it is not a symptom of scorbutus it is closely related to it. The only treatment they use is an alkaline wash, with a diet of raw vegetables and fruits as much as possible. If in an under-nourished child, these deposits may invade the cornea. Usually it does not go on to blindness, but the child often dies in these severe attacks. Most of the attacks are very light.

Dr. Parker—I presented this because it was a rather interesting case to me, being the only one that I had ever seen. I am led to believe from the lack of literature on the subject that these cases are very rare.

SOME SUGGESTIONS*

GEORGE KESSEL, M.D., F.A.C.S., Cresco

America's distinguished infidel was in the habit of prefacing some of his brilliant remarks by saying that if he had been present at the time of the making of the laws on Mt. Sinai he would have made some suggestions. Most of his suggestions are embodied in his famous oration "The Mistakes of Moses." One could only wish that he had divided his time and devoted some of it to a companion oration on "The Mistakes of Æsculapius." It might have produced an equal amount of merriment for his interested audiences. The value of such an oration is not in its entertaining qualities but in the lessons it would teach. This is on the theory that we learn more from our mistakes than from our successes. Science is simple. It is progressive. It is an evolution. Our fathers in medicine wrote as follows: "It is also to be noticed, if there be any marshy places, that certain minute animals breed there which are invisible to the eye, and yet, getting into the system through mouth and nostrils, cause serious disorders, diseases which are difficult to treat." The surgeons of that distant day thought these animalculæ existed in the air and so they tried to protect wounds from air contamination. Some noticed that when wounds were well sewed up they healed better because less air entered into them. Others covered the wound by wine fomentations. Still others covered the wound first with a dressing of wax, turpentine and resin and on top of this they placed a dressing of cloth saturated with wine. All this for the purpose of excluding the air. Even as late as 1889 I watched Sir Joseph Lister use the carbolic acid spray in his operating room on the same theory, viz., that

the air was the source of wound infection. But how rapidly the science of surgery has traveled since then! In 1840 lies the beginning. At this time Henle enunciated the principles of the Germ Theory of Disease. He is rightly entitled to be called the father of this theory. The principles he laid down are embodied in the following three laws:

1. A specific microorganism must be constantly associated with the disease and capable of being isolated and studied apart from the disease.
2. The organism introduced into healthy animals must produce the disease.
3. This organism must be found in these inoculated animals in the original condition.

These requirements were so high that Henle and his coworkers were never able to attain to them with the crude instruments and methods at their disposal. But they were so well elaborated that Koch took them up later and postulated them in clear terms. These three laws laid down by Henle remain to this day the cornerstones on which the Germ Theory rests and determine the relationship of bacteria to disease.

This is a very brief and imperfect outline of the beginnings of the science of the present day surgery. Today, surgery can be simmered down and defined in a few words, viz., The Control of the Circulation—and explained as follows:

1. See to it that no pathogenic germs are introduced into the circulation either before, during or after the operation.

2. See to it that hæmostasis is complete, conscientiously thorough, and lasting. This statement may need explanation. The surgeon will do well to make sure that every bleeding point is securely tied to stay tied. This is easily said but not always easily done. When a vessel spurts and is easily accessible it is easily tied. But there are vessels that do not spurt that need tying. To illustrate what I mean. In goitre operation tie every bleeding point till the wound seems dry and you think you are ready to close the skin. But before you do this wait a little, let the patient come out from under the ether enough so that she swallows a few times and then see in some cases a half dozen points begin to bleed. Following this method will prevent many a case of hæmatoma occurring after operation.

3. Use every care and means to prevent shock. This is partly covered by the statement just made regarding a thorough hæmostasis. But shock is not altogether hemorrhage. There are cases where the operation was not serious, was of short duration and easily executed, and yet the patient was taken off from the table depressed, looked ill and did not rally well—and occasionally did not rally at all. Was the anesthetic the cause? Perhaps. Anyway let the anesthesia always be as light and brief as possible.

*Read at July meeting Austin Flint-Cedar Valley Medical Society, Clear Lake, Iowa.

And then see to it that the patient is lifted up into a good condition the first twenty-four hours after the operation. You can then go home and worry no longer; she will get well.

We all read medicine, talk medicine and dream medicine till the whole thing becomes dull and monotonous. So I am going to be content simply to state some conclusions which seem justified by our experience.

The operations which give us the greatest satisfaction are goitre, tonsils and adenoids, hemorrhoids and cholecystectomies. Cholecystostomies nearly all prove failures inside of six months. The operations which give us the least satisfaction, in fact plague us, are removal of chronic appendices. For heaven's sake let us begin to think twice before we operate for so-called chronic appendicitis because the majority of the patients will come back in a few weeks or a few months complaining more than ever and laying the blame for their multiplied suffering to the operation.

The requirements of the practice of surgery today are high. When I was sitting at the feet of the Gamaliels in medicine in 1885, we were taught mostly by definitions. Peritonitis was divided into two classes, viz., traumatic and idiopathic. An abscess was a collection of pus within a limiting membrane. Today that kind of teaching is hardly adequate. A student who would today define an abscess as stated would be given a goose egg. Now the surgeon wants to know what germ is the causative factor of the abscess, whether it is the streptococcus, staphylococcus, colon bacillus, or gas bacillus, etc., in order to enable him to apply the correct treatment in each case. What does this mean? It means team work. It means that the one man day is gone. It means that the surgeon, internist, neurologist, bacteriologist and roentgenologist must cooperate if the patient is to get the service he has a right to expect.

Like the mighty river that has its beginning in the little Lake of the Woods, gathering streamlet after streamlet, and rivulet after rivulet, and augments its volume as it sweeps on to the boundless ocean, so our profession must gather in the streams of knowledge from a thousand hills to give us wisdom as we go forward in the battle against disease and immorality and do our bit to make the world safe for the human family.

The Nickerson residence on East Eric street has been purchased by the Chicago members of the American College of Surgeons and turned over to the college to be used as an administration home.

LIST OF IOWA PHYSICIANS WHO HAVE BEEN RECOMMENDED BY THE SUR- GEON GENERAL FOR COMMISSIONS IN THE MEDICAL OFFICERS RE- SERVE CORPS AND ASSIGNED TO DUTY

Acher, Albert Edward, 1st Lieut., Ft. Dodge.
Agnew, Fred F., Capt., Independence.
Alessi, Nicolo Vincenzo, 1st Lieut., Independence.
Allen, Larned Van Patten, 1st Lieut., Davenport.
Allen, Lloyd, Capt., Chariton.
Alt, Roy Colony, 1st Lieut., Cedar Rapids.
Amdor, William Franklin, 1st Lieut., Carbon.
Amick, Louis Burton, 1st Lieut., Millersburg.
Anderson, Paul Oren, 1st Lieut., Bouton.
Anderson, Harmont Nathaniel, 1st Lieut., Woodbine.
Anderson, Marion Ellsworth, 1st Lieut., Clinton.
Anspach, William Earl, 1st Lieut., Colfax.
Anthony, Walter H., 1st Lieut., Ottumwa.
Armentrout, Coral Ray, Capt., Keokuk.
Armitage, Albert Gieggle, 1st Lieut., Shenandoah.
Aschenbrenner, Carl, Capt., Pella.
Atkins, George Leslie, Capt., Superior.
Augustine, Grant, Capt., Minden.
Austin, Homer Moon, Capt., Wellman.
Ayers, Franklin Dewight, 1st Lieut., Sabula.
Ayres, Edward C., Capt., Lorimor.
Baird, Charles Glenn, Capt., Cedar Rapids.
Baker, John Elmer, 1st Lieut., Maynard.
Baldridge, John H., 1st Lieut., Batavia.
Bannister Murdoch, 1st Lieut., Ottumwa.
Banton, Oscar Herman, 1st Lieut., Nora Springs.
Bare, Elmer Anderson, Capt., Pleasantville.
Barnes, Benjamin Spafford, 1st Lieut., Shenandoah.
Barton, Hugh Pierce, 1st Lieut., Davenport.
Bartruff, Charles Henry, 1st Lieut., Reinbeck.
Barragy, Joseph Carroll, 1st Lieut., Mason City.
Bartlett, Clifford Loomis, 1st Lieut., Clinton.
Baskin, Charles Llewelyn, 1st Lieut., Chariton.
Battey, Percy Betterman, Capt., Independence.
Battin, James Franklin, 1st Lieut., Marshalltown.
Bawden, George Stephen, 1st Lieut., Davenport.
Beatty, Jesse James, 1st Lieut., Farragut.
Becker, Royal August, 1st Lieut., Anita.
Beeh, Edward Francis, 1st Lieut., Ft. Dodge.
Bellaire, Roy F., 1st Lieut., Sioux City.
Bellinger, Frank Earl, Capt., Council Bluffs.
Bemis, George Arthur, 1st Lieut., Garner.
Bendixen, Peter Alfred, 1st Lieut., Davenport.
Benedict, Edgar Pearl, 1st Lieut., Battle Creek.
Benjamin, Howard Paul, 1st Lieut., Council Bluffs.
Bernard, Ramsom Drips, 1st Lieut., Clarion.
Bess, Thomas Floyd Ernest, 1st Lieut., Ft. Madison.
Betts, William Henry, 1st Lieut., Madrid.
Bevius, Nathan Sidney, 1st Lieut., Ft. Atkinson.
Beye, Howard Low, 1st Lieut., Iowa City.
Binder, Frederick, 1st Lieut., Corning.
Binford, William Sherwood, 1st Lieut., Dixon.
Blachley, T. W., 1st Lieut., Centerville.
Black, John Roland, 1st Lieut., Jefferson.
Blessin, Otto James, 1st Lieut., Postville.

- Block, Charles Earl, 1st Lieut., Davenport.
Blocklinger, Albert Herman, Capt., Dubuque.
Blything, Jefferson Duddleston, Capt., Bettendorf.
Boetel, George Hans, 1st Lieut., Rock Rapids.
Boggs, Nathan, Capt., New London.
Bookhart, Edward Webster, 1st Lieut., Breda.
Booker, Arthur John, 1st Lieut., Des Moines.
Bowen, Frederick Stuber, 1st Lieut., Woodburn.
Bowes, John Joseph, 1st Lieut., Livermore.
Bowie, Cecil Claude, 1st Lieut., Dedham.
Bowie, Louis L., 1st Lieut., Milo.
Bowles, Frederick Wilson, 1st Lieut., Ottumwa.
Bowman, Leonard James, 1st Lieut., Masonville.
Bowman, Edward Sommet, Capt., Davenport.
Boyd, Mark Frederick, 1st Lieut., Iowa City.
Brackney, Herman John, Capt., Sheldon.
Bradley, William, Capt., Leon.
Brand, Rudolph M.
Braunlich, George, 1st Lieut., Davenport.
Brereton, Harold Linhoff, 1st Lieut., Emmetsburg.
Brewer, Martin Theron, 1st Lieut., De Soto.
Bridgman, Harry Lee, 1st Lieut., Columbia.
Brinkman, John Edward, Capt., Waterloo.
Brinkman, William Frederick, 1st Lieut., Des Moines.
Brisbine, Royal Elis, 1st Lieut., Mason City.
Brown, Harvey Lee, 1st Lieut., Ft. Des Moines.
Brown, William Frank, 1st Lieut., Keokuk.
Brown, William Ebenezer, 1st Lieut., Cedar Rapids.
Browne, Arthur Davis (colored) 1st Lieut., Ft. Des Moines.
Browning, George Stillman, Capt., (deceased), Sioux City.
Brownson, Jason Daniel, Capt., Monona.
Brownson, Orestes Augustine, 1st Lieut., Dubuque.
Bruce, James Hugh, 1st Lieut., Dickens.
Brush, Milo Orion, 1st Lieut., Shenandoah.
Bryant, William Henry, 1st Lieut., Ft. Des Moines.
Buck, Samuel Cory, Capt., Grinnell.
Burcham, Thos. A., Major, Des Moines.
Burchett, Edwin, 1st Lieut., Seymour.
Burke, Charles Bernard, Capt., Atlantic.
Burke, Thomas Allen, 1st Lieut., Mason City.
Burke, Charles Henry, 1st Lieut., Algona.
Bush, Earl B., Major, Ames.
Byers, Albert Garfield, 1st Lieut., Albia.
Cady, Clinton Colfax, 1st Lieut., Harris.
Cahill, John Alysus, 1st Lieut., Volga City.
Caldwell, J. Willard, 1st Lieut., Steamboat Rock.
Caldwell, Jay S., 1st Lieut., Lenox.
Callahan, Bernard Joseph, Capt., Des Moines.
Campbell, Malcolm Samuel, 1st Lieut., Malvern.
Campbell, Claude Melville, Capt., Decorah.
Cantonwine, Emtellis Augustus, Capt., Dubuque.
Cantwell, John Dalzell, 1st Lieut., Davenport.
Carberry, Elmer Andrew, 1st Lieut., Maynard.
Carey, Francis Stephen, 1st Lieut., Williams.
Carey, Leland Oren, 1st Lieut., Des Moines.
Carmody, Thomas James, 1st Lieut., Wesley.
Carney, Samuel David, Capt., Sioux City.
Carpenter, William Sanford, Capt., Des Moines.
Carpenter, Lenora, Red Cross Service, Des Moines.
Carr, Leslie Louis, 1st Lieut., Clermont.
Carter, Raymond Holmes (colored) 1st Lieut., Ft. Des Moines.
Carver, William Franklin, Capt., Ft. Dodge.
Carver, Harry Everette, 1st Lieut., Rose Hill.
Caughlan, Gerald Vaughn, 1st Lieut., Pacific Junc.
Cauley, Francis Patrick, 1st Lieut., Anthem.
Charlton, Albert John, 1st Lieut., Lowden.
Chase, Sumner Bereman, 1st Lieut., Ft. Dodge.
Cheney, Louis Dwight, 1st Lieut., Sioux City.
Chenoweth, Charlie Everette, 1st Lieut., Iowa City.
Chesnutt, Thomas Henry, 1st Lieut., Mt. Pleasant.
Chester, Walter Simmons, 1st Lieut., Britt.
Christensen, John Raymond, Capt., Eagle Grove.
Christy, Edgar, Capt., Hastings.
Clapsaddle, John Guy, 1st Lieut., Burt.
Clark, Leslie William, 1st Lieut., Chester.
Clark, Frank H., Capt., Clarinda.
Clark, Oliver Thaddeus, 1st Lieut., Keokuk.
Clarke, James Frederic, Lieut.-Col., Fairfield.
Clary, William Henry, 1st Lieut., Prescott.
Cleaver, Gean Dutton, 1st Lieut., Council Bluffs.
Cleaves, Prentiss Bowden, 1st Lieut., Cherokee.
Cobb, Elliott Cunningham, 1st Lieut., Sioux City.
Cody, William Ellsworth, 1st Lieut., Merrill.
Coffey, Lee Matthew, Capt., Keokuk.
Coffin, Lonnie A., 1st Lieut., Farmington.
Cogswell, Jr., Charles Herbert, Capt., Cedar Rapids.
Cole, James Fay, Capt., Oelwein.
Colleston, Charles Chapman, 1st Lieut., Spencer.
Collins, James Love, 1st Lieut., Sheffield.
Conkling, Wilbur Scott, Lieut.-Col., Des Moines.
Conn, Harold Russell, 1st Lieut., Cedar Rapids.
Conrad, Albert Everett, Capt., Decorah.
Conway, Aaron Clyde, 1st Lieut., Marshalltown.
Cooper, William Alonzo, 1st Lieut., Bayard.
Cooper, James Swaney, 1st Lieut., Burlington.
Corbin, Sylvanus Weston, 1st Lieut., Millerton.
Corlett, Matthias Southward, 1st Lieut., Westgate.
Cornell, Corwin Schaffner, Major, Knoxville.
Cornish, Louis Alexander (colored) 1st Lieut., Ft. Des Moines.
Corns, William, 1st Lieut., Montour.
Couper, Edward Alexander, 1st Lieut., Britt.
Courshon, Benjamin, Capt., Sioux City.
Craven, Lawrence Lewellyn, Capt., East Peru.
Cremin, William J. S., 1st Lieut., Sioux City.
Cressler, Frank Ernest, Capt., Churdan.
Crow, Ira Nelson, Capt., Marengo.
Crow, G. B., Lieut.-Com., Burlington.
Crompton, Robert Cochran, 1st Lieut., Webster City.
Cruzen, John Lewis, 1st Lieut., Lacona.
Cummings, William Cyrus, 1st Lieut., Ryan.
Curry L. T., Major, Waterloo.
Cutler, Frank Ross, 1st Lieut., Guttenberg.
Dahl, Peter I., 1st Lieut., Inwood.
Daly, James Joseph, Capt., Decorah.
Daly, William Thomas, Capt., Cresco.
Danley, Royal Clark, 1st Lieut., Hamburg.
Darche, Alexander Louis, 1st Lieut., Woodward.
Daut, Walter William, 1st Lieut., Muscatine.
Davis, Jr., Charles Frank, 1st Lieut., Mt. Pleasant.
Davis, Austin Clifford, 1st Lieut., Iowa City.

- Day, Philip Miller, 1st Lieut., Keokuk.
Decker, Herbert Morgan, Capt., Davenport.
Deering, Albert Benson, Capt., Boone.
Dennison, John Chase, Capt., Bellevue.
DePree, Seine Bolks, Capt., Sioux Center.
Detchon, Hugh Smith, 1st Lieut., Victor.
Dewey, Christian Henry, Major, Perry.
Dierker, Frank Henry, 1st Lieut., West Point.
Dilley, Harry Horace, 1st Lieut., Des Moines.
Dingman, Marshal Edwin, 1st Lieut., Urbana.
Diven, Wilber, 1st Lieut., Iowa City.
Dixon, John Wesley, Capt., Burlington.
Donahue, Julia, U. S. Laboratory Service, Burlington.
Donohue, George, Major, Cherokee.
Dorsey, Thomas James, 1st Lieut., Clare.
Doty, Clarence Hayes, Capt., Center Point.
Downing, James Arthur, Capt., Des Moines.
Drake, Franklin Joseph, 1st Lieut., Webster City.
Draper, Walter E., Major, Manilla.
Druet, Arthur Lewis, 1st Lieut., Larchwood.
Duffield, Thomas J., Major, Clarinda.
Duhigg, Thomas A., Major, Navy, Des Moines.
Dunlap, Wallace Ashbury, Capt., Des Moines.
Dunlavey, 1st Lieut., Logan.
Dunn, James, 1st Lieut., Davenport.
Dunning, Milo Benjamin, Capt., Conway.
Dunshee, Jay Dee, 1st Lieut., Harlan.
Dyer, Benjamin George, Capt., Ames.
Easton, M. T., Major, Conway.
Eaton, Richard Gardner, Capt., Cherokee.
Ebersole, Francis Fisher, Capt., Mount Vernon.
Edgerly, Edward T., Major, Ottumwa.
Edgington, James Everett, 1st Lieut., Washington.
Egloff, William Jacob, Capt., Mason City.
Elder, John William, 1st Lieut., Des Moines.
Enfield, Charles Darwin, 1st Lieut., Jefferson.
Erskine, Arthur Wright, 1st Lieut., Cedar Rapids.
Eslick, Louis Edward, 1st Lieut., Rockwell City.
Evans, Evan Stark, Capt., Grinnell.
Evens, Leo Erwin, Capt., Waterloo.
Everall, Bruce Bilo, 1st Lieut., Monona.
Fagen, Rodney P., Lieut.-Col., Des Moines.
Fairchild, Jr., David Sturges, Colonel, Clinton.
Farlow, Charles Troy, 1st Lieut., Yetter.
Feightner, Robert Floyd, 1st Lieut., Ft. Madison.
Felder, William W., 1st Lieut., Ft. Des Moines.
Felt, Garnett Smith, 1st Lieut., New Providence.
Fenton, Willard Joshua, 1st Lieut., Mystic.
Ferguson, Sereno Marcellus, 1st Lieut., Avoca.
Fettes, James Murray, 1st Lieut., Le Mars.
Ficke, Emil Otto, Capt., Davenport.
Fillmore, Jr., Rollin Slossen, 1st Lieut., Corwith.
Finley, Walter George, 1st Lieut., Mondamin.
Findley, Park A., Capt., Des Moines.
Fisher, Charles Sumner, 1st Lieut., Ft. Des Moines.
Fitzgerald, E. T., Capt., Boone.
Fitzpatrick, Matthew Joseph, 1st Lieut., Mason City.
Flageolle, Joseph, W. B., 1st Lieut., Sioux City.
Fleischman, Abraham George, 1st Lieut., Des Moines.
Fletcher, Frederick William, 1st Lieut., Thurman.
Foley, Walter Edward, 1st Lieut., Davenport.
Fonda, James William, 1st Lieut., Defiance.
Foster, Wayne Jones, 1st Lieut., Iowa City.
Fox, Walter Henry, Capt., Waucoma.
Franchere, Chetwynd Marr, 1st Lieut., Mason City.
Frank, George Washington, Capt., Buffalo.
Fraser, Walter, 1st Lieut., Algona.
Freeman, Milton Joseph, 1st Lieut., Carroll.
Fritz, Lafayette Helmuth, 1st Lieut., Dubuque.
Fruitnight, Henry S., 1st Lieut., Iowa City.
Fruth, Harold Edgar, 1st Lieut., Muscatine.
Fuller, Frank Manely, Capt., Keokuk.
Fulliman, Jr., Edmond Bland Ballard, 1st Lieut., Muscatine.
Gaffey, Frank Harold, 1st Lieut., Bradgate.
Gaillard, Samuel S., 1st Lieut., Perdue Hill.
Gallagher, D. J., Capt., Iowa City.
Galloway, Milton Blythe, Capt., Webster City.
Canoe, James Orval, Capt., Ogden.
Gardner, John Raphael, Capt., Lisbon.
Garrett, John Milton, Capt., Fort Dodge.
Geiger, Ulysses Simpson, 1st Lieut., North English.
Geissinger, John De Walt, Capt., Spirit Lake.
George, Abel Benson, Capt., Red Oak.
Gernsey, Merritt Nelson, 1st Lieut., Waverly.
Gibson, George, 1st Lieut., Lehigh.
Gilfillan, Bruce Lock, Major, Keokuk.
Gillett, Francis Andrew, 1st Lieut., Fremont.
Gilpin, George Sealey, 1st Lieut., Des Moines.
Gittins, Thomas Roy, 1st Lieut., Iowa City.
Given, Milton Abe, 1st Lieut., Des Moines.
Glew, Percival Bainbridge, 1st Lieut., Dallas Center.
Glomset, Daniel Johnson, Major, Des Moines.
Glynn, Charles Edward, Capt., Davenport.
Golden, Thomas Vincent, 1st Lieut., Creston.
Gottsch, Erwin Julius, Capt., Le Mars.
Gordon, William Noll, 1st Lieut., Rowan.
Gould, George Richard, 1st Lieut., Conrad.
Graber, Fred J., 1st Lieut., Stockport.
Graham, Evarts Ambrose, Capt., Mason City.
Graening, Charles Henry, 1st Lieut., Waverly.
Grant, Cecil Charles, 1st Lieut., Hudson.
Gratiot, Harvey B., Capt., Dubuque.
Graul, A. G., 1st Lieut., Storm Lake.
Gray, Henry Arthur, Capt., Keokuk.
Gregg, John B., Capt., Iowa City.
Gregory, Ross Holland, Capt., Creston.
Griffin, Frank Leo, 1st Lieut., Baldwin.
Griffin, William Leighton, 1st Lieut., Charles City.
Griffin, John M., Albia.
Grimwood, Walter Harry, 1st Lieut., Ft. Madison.
Grove, Emil Gustav, 1st Lieut., Fairfield.
Guernsey, Paul Francis, 1st Lieut., Bloomfield.
Gutch, Roy Clark, 1st Lieut., Chariton.
Gutch, Thomas Ernest, 1st Lieut., Albia.
Guthrie, James Kuykendall, 1st Lieut., Ringsted.
Hadley, Elmer Burton, 1st Lieut., Waterloo.
Hagedorn, Harry Herbert, 1st Lieut., Sioux City.
Hall, Guy Jerome, 1st Lieut., Keokuk.
Halliman, Edward Leo, 1st Lieut., Clinton.
Hamilton, Jr., Benjamin Charles, 1st Lieut., Jefferson.
Hammer, Le Roy Aaron, 1st Lieut., Ottumwa.

- Hand, William Cory, 1st Lieut., Hartley.
Hanna, John Thomas, 1st Lieut., Kellogg.
Hannah, Ward, 1st Lieut., Webster City.
Hansen, Hans, Capt., Logan.
Harkness, Gordon Follette, Capt., Davenport.
Harlan, Charles Davis, Capt., Keswick.
Harman, Clarence, 1st Lieut., Whiting.
Harman, Dean Willard, 1st Lieut., Tripoli.
Harnagel, Edward John, Capt., Des Moines.
Harned, Calvin Waldo, Major, Des Moines.
Harris, Ray Rhinalds, 1st Lieut., Dubuque.
Harris, Edwin Ewell, Capt., Grinnell.
Harris, William Alfred, 1st Lieut., Ft. Des Moines.
Harris, William, 1st Lieut., Moravia.
Hartman, Evert Clarence, 1st Lieut., Algona.
Hartwell, Samuel Willard, 1st Lieut., New Sharon.
Hasek, Victor Hugo, 1st Lieut., Cedar Rapids.
Hawkins, Emmet Lefevre, 1st Lieut., Mineola.
Hazzard, Charles M., 1st Lieut., Arlington.
Healy, Maurice Arthur, Capt., Boone.
Heard, Jr., Thomas Marsden, Capt., Sioux City.
Hearst, William L., Capt., Cedar Falls.
Heise, Carl August, 1st Lieut., Missouri Valley.
Henely, Edmund, Capt., Nora Springs.
Henneger, William Andrew, 1st Lieut., La Motte.
Hennessey, Albert Vincent, Capt., Council Bluffs.
Hennessey, Maurice Charles, 1st Lieut., Council Bluffs.
Henninger, Louis Le Roy, Capt., Council Bluffs.
Henry Rex Vale, 1st Lieut., Hedrick.
Hermence, George Earl, 1st Lieut., Marshalltown.
Herrick, Thomas Blenhard, Capt., Manson.
Herrick, John Francis, Capt., Ottumwa.
Herrick, Rupert Connor, 1st Lieut., Gilmore City.
Herrman, Jr., Christian Henry, 1st Lieut., Amana.
Heusinkveld, Henry John, 1st Lieut., Clinton.
Hexom, John Daniel, 1st Lieut., Decorah.
Hickman, Charles Stephen, 1st Lieut., Centerville.
Hill, Chalmers Alexander, Capt., Council Bluffs.
Hill, George Ray, Capt., Charter Oak.
Hill, Julia F., U. S. Gr. Hospital, Ft. McPherson, Ga., Des Moines.
Hinshaw, Sylvester Ellsworth, Capt., Newton.
Hoag, Harry Martin, Capt., Mason City.
Hobby, Edwin Elmer, Capt., Iowa City.
Hobson, Thomas Alexander, 1st Lieut., Parkersburg.
Hoffman, William Louis, 1st Lieut., Gilbert.
Hoffman, Alfred Anthony, 1st Lieut., Waterloo.
Hoit, Jefferson Newton, 1st Lieut., Rockwell City.
Holbrook, Francis Roderick, Capt., Des Moines.
Hollis, Edward L., 1st Lieut., Rolfe.
Hombach, William Henry, 1st Lieut., Remsen.
Hooper, Lester E., 1st Lieut., Beech.
Hooper, Martin Luther, 1st Lieut., Indianola.
Hoover, Alden Robbins, Capt., Des Moines.
Hough, Frank Sherman, Capt., Sibley.
Householder, Harold A., 1st Lieut., Winthrop.
Houston, Bush, 1st Lieut., Nevada.
Houten, H. L., Capt., Ft. Des Moines.
Howard, William Henry, 1st Lieut., Strawberry Point.
Howard, William Arthur, 1st Lieut., Cherokee.
Howe, Lysle Clarence, 1st Lieut., Milton.
Hubbard, Frank Albert, 1st Lieut., Columbia Junct.
Hubbard, William Marvin, 1st Lieut., Rembrandt.
Huber, Simon Andrew, Capt., Charter Oak.
Huff, Leoman D., 1st Lieut., Lenox.
Huisenga, Richard, Capt., Rock Valley.
Hull, James Apperson, Capt., Ottumwa.
Hull, Henry Clay, Capt., Washington.
Hunt, Hiram Henry, 1st Lieut., Hazelton.
Huston, Daniel Farrel, 1st Lieut., Columbus Junct.
Huston, Herbert Marc., 1st Lieut., Ruthven.
Huston, Samuel Wesley, 1st Lieut., Crawfordsville.
Ingersoll, Perry Grant, 1st Lieut., Dunlap.
Irvin, Harry Clay, 1st Lieut., Adel.
Jackson, Raymond Nathaniel (colored), 1st Lieut., Ft. Des Moines.
Jacobs, Thomas Dana, 1st Lieut., Morley.
Jaenicke, Kurt, Major, Clinton.
James, Charles Stephen, Capt., Centerville.
James, Lora Douglas, Capt., Fairfield.
Jaynes, Edwin Thompson, Capt., Waterloo.
Jenkinson, Harry Rogers, 1st Lieut., Iowa City.
Jenks, William Henry, Capt., Tipton.
Jepson, William, Major, Sioux City.
Jewell, Milton Dana, 1st Lieut., Decorah.
Johnson, Chester Harvey, 1st Lieut., Cherokee.
Johnson, George Monroe, Capt., Marshalltown.
Johnson, Kenneth L., 1st Lieut., Oskaloosa.
Johnson, William Garfield, 1st Lieut., Princeton.
Johnston, William Howard, 1st Lieut., Muscatine.
Jones, Sydney David, 1st Lieut., Ft. Dodge.
Jones, Mary Clyde, Capt., Boone.
Jones, Charles Lee, Major, Gilmore City.
Jones, Harry Jacob, Major, North English.
Joynt, Michael Francis, 1st Lieut., Marcus.
Kaasa, Lawrence J., Capt., Lake Mills.
Kail, Carl, 1st Lieut., Stratford.
Katherman, Charles Augustus, Capt., Sioux City.
Kearney, Charles Atwell, Capt., Dubuque.
Keech, Roy Kneale, 1st Lieut., Cedar Rapids.
Keefe, Frank Milos, 1st Lieut., Clinton.
Keefe, Patrick Eugene, 1st Lieut., Sioux City.
Kellogg, Charles Elmer, 1st Lieut., Shenandoah.
Kellogg, Orson Arza, 1st Lieut., Dows.
Kemp, Malcolm Edwin, 1st Lieut., Sigourney.
Kennedy, Charles Stephen, Capt., Logan.
Keogh, John Victor, Capt., Dubuque.
Kerstin Ernest M., Fort Dodge.
Kessell, James E., 1st Lieut., Des Moines.
Ketchum, Philip Vial, 1st Lieut., Elkhart.
Kiesling, Harry Franklin, 1st Lieut., Dayton.
Kilborne, Jay Melanethon, Capt., Sioux City.
Kimmel, Elmer Ellsworth, 1st Lieut., Iowa City.
King, David Oliver, 1st Lieut., Eldora.
King, Thomas Wayne, 1st Lieut., Maloy.
King, Oran West, Major, Montezuma.
King, Elliott R., Capt., Letts.
King, Frank Ray, Capt., Farmersburg.
Kinnaman, Clarence Horace, 1st Lieut., Keokuk.
Kirkwood, Robert Carnahan, 1st Lieut., Coulter.
Kleinberg, Henry Edward, 1st Lieut., Redfield.

Knepper, Joseph John, 1st Lieut., Ames.
 Knipe, James Bolton, 1st Lieut., Armstrong.
 Koch, George William, Capt., Sioux City.
 Konigmacher, Adam Hiesland, 1st Lieut., Missouri Valley.
 Krejsa, Oldrich, Capt., Cedar Rapids.
 Kresensky, Walter W. A., 1st Lieut., Greeley.
 Kuhn, Leo Cornelius, 1st Lieut., Chariton.
 Kulp, Raymond Raney, 1st Lieut., Davenport.
 Lacey, Thomas Bigelow, Capt., Glenwood.
 La Force, Edward Francis, Capt., Burlington.
 Laird, John W., 1st Lieut., Mt. Pleasant.
 Lamb, Frederick Howe, Capt., Davenport.
 Lambach, Frederick, Capt., Davenport.
 Lambert, Elmer John, 1st Lieut., Ottumwa.
 Lampe, Elmer Lewis, 1st Lieut., Bellevue.
 Lang, Corvus C., 1st Lieut., Altoona.
 Langworthy, Solon Mitchell, 1st Lieut., Cedar Rapids.
 La Pina, Francis, Capt., Des Moines.
 Latchem, Raymond Lee, 1st Lieut., Walnut.
 Lauder, Clark Hays, 1st Lieut., Grinnell.
 Lebagh, Nicholas Walter, 1st Lieut., Mystic.
 Lee, Edwin Henry (colored), 1st Lieut., Ft. Des Moines.
 Leehey, Florance Patrick, Capt., Oelwein.
 Lehman, Emery Eilfred, 1st Lieut., Des Moines.
 Leir, Charles Nicholas Olsen, Capt., Des Moines.
 Leonard, Frederick Sylvester, 1st Lieut., Cascade.
 Leonard, Earl Renshaw, 1st Lieut., Rock Valley.
 Lesan, Cassius True, Capt., Mount Ayr.
 Lewis, Eugene R., Lieut.-Col., Dubuque.
 Lincoln, Simon Emanuel, Capt., Des Moines.
 Lindsay, Samuel Connell, Capt., Independence.
 Linehan, Lewis Joseph, 1st Lieut., Dubuque.
 Littig, John Vincent, Major, Davenport.
 Loes, Anthony Michael, 1st Lieut., Dubuque.
 Lohr, Oscar Clare, 1st Lieut., Churdan.
 Long, Thomas Lee, Capt., Woodward.
 Long, Walter Klingeman, Capt., Hampton.
 Loosbrock, John Francis, 1st Lieut., Ft. Des Moines.
 Losh, Clifford Welcome, Capt., Des Moines.
 Lott, Robert Henry, 1st Lieut., Waverly.
 Lott, Guy Alexander, 1st Lieut., St. Ansgar.
 Love, Francis Leonard, Major, Iowa City.
 Lowrey, Claude Edwin, 1st Lieut., Centerville.
 Lucast, Thomas, Capt., Forrest City.
 Lugar, Laurell Lavergne, 1st Lieut., Corydon.
 Luginbuhl, Christian Bateman, Capt., Des Moines.
 Lundvick, Arthur Wesley, 1st Lieut., Gowrie.
 Luse, Ralph Frank, 1st Lieut., Low Moor.
 Lusk, Everett Edwin, Capt., Missouri Valley.
 Lynch, George Daniel, 1st Lieut., Moravia.
 Lynch, Robert James, Capt., Des Moines.
 Lyon, William Edwin, 1st Lieut., Garden Grove.
 Lyon, Morton, 1st Lieut., De Witt.
 Lyons, Charles W., Major, Marne.
 Lythcott, Geo. Ignatius (colored), 1st Lieut., Ft. Des Moines.
 Lytle, Carl Carruth, 1st Lieut., Lansing.
 McAllister, James, 1st Lieut., Battle Creek.
 McAllister, Fred J., Capt., Hawarden.

McAtee, John Stephen, 1st Lieut., Council Bluffs.
 McBride, James Thomas, 1st Lieut., Des Moines.
 McCaffrey, Eugene Henry, 1st Lieut., Maquoketa.
 McCall, John Harvey, 1st Lieut., Allerton.
 McCall, Harry Ernest, Capt., Clearfield.
 McCaughan, Thomas Elsie, Capt., Ireton.
 McCauliff, Guy Thomas, Major, Webster City.
 McCarthy, Daniel Jos., Major, Davenport.
 McClean, Earl Dernard, Capt., Oskaloosa.
 McConnaughey, James Terry, 1st Lieut., Winfield.
 McConnell, Guthrie, Capt., Waterloo.
 McCreight, Arthur Henry, Capt., Fort Dodge.
 McDonald, James Edward, Capt., Mason City.
 McDowell, Gilbert Thompson, Capt., Gladbrook.
 McElderly, Donald, 1st Lieut., Ottumwa.
 McFaul, William Darwin, Capt., Miles.
 McGrew, Oliver W., 1st Lieut., Grandview.
 McGuire, Roy Alvin, 1st Lieut., Brighton.
 McGuire, Clarence Ambrose, 1st Lieut., Dubuque.
 McIntyre, John Archibald, Capt., Walcott.
 McKinley, Alexander Daniel, Capt., Des Moines.
 McKirahan, Josiah Ralph, Capt., Perry.
 McKone, James W., Lawler.
 McLaughlin, A. J., Major, Sioux City.
 McLaughlin, Philip Benedict, Major, Sioux City.
 McLaughlin, Charles William, Capt., Washington.
 McMahan, Thomas, 1st Lieut., Iowa City.
 McNeil, Benjamin F., 1st Lieut., Charles City.
 McPherrin, Henry Ira, Capt., Perry.
 McVay, Melvin Josiah, 1st Lieut., Lake City.
 Mackey, Charles Andrew, 1st Lieut., Centerville.
 MacNaughton, Luther Damon, 1st Lieut., Eagle Grove.
 Mackin, Mitchell Charles, 1st Lieut., Knoxville.
 Macrae, Jr., Donald, Colonel, Council Bluffs.
 Magoun, Charles Elmer, 1st Lieut., Sioux City.
 Mahan, Horace Porter, 1st Lieut., Ellsworth.
 Maiden, Sydner Dale, 1st Lieut., Council Bluffs.
 Manahan, Charles Albert, 1st Lieut., Marengo.
 Maresh, George, 1st Lieut., Riverside.
 Maris, Gerrit, 1st Lieut., Hull.
 Marker, John Israel, 1st Lieut., Centerville.
 Martin, Loran Marshall, 1st Lieut., Fort Dodge.
 Martin, Edgar Harvey, 1st Lieut., Ft. Des Moines.
 Martin, James Lemuel, 1st Lieut., Ft. Des Moines.
 Martin, Ulysses Grant Baldwin, 1st Lieut., Ft. Des Moines.
 Martindale, Ed. L., Major, Clinton.
 Marston, Charles Lemuel, Capt., Mason City.
 Masson, Hervey Fulton, 1st Lieut., Washington.
 Mathias, Daniel Francis, 1st Lieut., Audubon.
 Matson, John Archie, 1st Lieut., Tipperary.
 Matthews, Robert John, 1st Lieut., Clarinda.
 Mattison, Jr. G., 1st Lieut., Akron.
 Maxwell, John, 1st Lieut., Gibson.
 Maxwell, Charles Thomas, Capt., Sioux City.
 Mead, Frank Nathan, Capt., Cedar Falls.
 Meany, John Francis, 1st Lieut., Rockwell City.
 Mehler, Frank Raymond, 1st Lieut., New London.
 Mehlhop, Clarence Warren, Capt., Dubuque.
 Meigs, Benjamin Lyle, 1st Lieut., Fort Dodge.
 Mercer, Clifford David, 1st Lieut., West Union.

- Meredith, Loren Kenneth, 1st Lieut., Des Moines.
Mereness, Herbert Dayton, Capt., Dolliver.
Merritt, Edwin Atking, Capt., Council Bluffs.
Meyer, Henry Edward, Capt., Hampton.
Meyer, Albert Julius, 1st Lieut., Hawarden.
Meyer, Valentine John, 1st Lieut., Defiance.
Middleton, George McClelland, Capt., Davenport.
Middleton, Edward D., Capt., Davenport.
Middletown, Harry Ernest, 1st Lieut., Lake City.
Miller, Fisher B. E., 1st Lieut., Cherokee.
Miller, Chester Arthur, 1st Lieut., Nevinville.
Miller, Roy Robert, 1st Lieut., Keota.
Miller, Enos De Witt, 1st Lieut., Wellman.
Miller, Brownlow Bartly, 1st Lieut., Tabor.
Miller, Thomas Ezekiel, 1st Lieut., Ft. Des Moines.
Mills, Frank Wilbur, 1st Lieut., Ottumwa.
Mitchell, Clairemont Hogue, Capt., Leon.
Moerke, Albert Charles, 1st Lieut., Burlington.
Moershel, H. G., 1st Lieut., Homestead.
Moes, Matthias Joseph, Capt., Dubuque.
Molison, Robert Crichton, 1st Lieut., Marshalltown.
Moon, Roy, Capt., Glenwood.
Moore, Charles Everett, 1st Lieut., Newton.
Morden, Roy Robert, Capt., Des Moines.
Morehouse, Cecil G., 1st Lieut., Waukon.
Morgan, John Edward, Capt., Oskaloosa.
Morganthaler, Otis Philip, Major, Templeton.
Morrison, Edward D., Capt., Barnum.
Morton, William Claspell, 1st Lieut., Iowa Falls.
Morton, Matthew Taylor, 1st Lieut., Iowa City.
Moth, Robert Shibley, 1st Lieut., Council Bluffs.
Mott, William Henry, 1st Lieut., Farmington.
Muench, Virgil Orin, 1st Lieut., Nichols.
Mullarky, Hugh, Capt., Manson.
Mulroney, Charles H., 1st Lieut., Ft. Dodge.
Murphy, James Orvil, 1st Lieut., Eldon.
Murphy, Walter Waugh, 1st Lieut., Lewis.
Murphy, Frank George, 1st Lieut., Cedar Rapids.
Murray, Meredith Byrne, 1st Lieut., Macedonia.
Murray, Frederick Gray, Capt., Cedar Rapids.
Myers, Judson William, 1st Lieut., Sheldon.
Myers, E. W., Capt., Rolfe.
Myrick, Eliel Grant, 1st Lieut., Fairfield.
Naffziger, Armand, 1st Lieut., Merrill.
Narrley, George Raymond, 1st Lieut., Keokuk.
Nauess, Charles Edward, 1st Lieut., Waterloo.
Negus, Alvah, Capt., Keswick.
Nelson, Audley Emmet, 1st Lieut., Sidney.
Nervig, Isaac Eugene, Capt., Sioux City.
Newell, William Carl, Capt., Ottumwa.
Newell, Floyd Wilmuth, 1st Lieut., Ottumwa.
Newland, Don Hamilton, 1st Lieut., Belle Plaine.
Nichols, Harry Carl, 1st Lieut., Carson.
Nichols, Frank Lane, 1st Lieut., Sutherland.
Nicolai, Paul, 1st Lieut., Livermore.
Nilsson, Frederick Cornelius, 1st Lieut., Laurens.
Norton, William Sheffield, Capt., Muscatine.
Nyquist, David Munsen, 1st Lieut., Eldora.
O'Brien, Stephen Ambrose, 1st Lieut., Mason City.
Odell, Isaac Hugh, 1st Lieut., Albia.
O'Donoghue, James Horation, 1st Lieut., Storm Lake.
O'Keefe, John Elbert, 1st Lieut., Waterloo.
O'Keefe, Charles John, 1st Lieut., Marble Rock.
Osborn, Dean Hill, 1st Lieut., Monticello.
Osborn, James William, Capt., Des Moines.
Pace, A. A., Major, Toledo.
Padgham, John Thomas, Capt., Grinnell.
Palmquist, Nathaniel, Capt., Hormick.
Parish, Ora Frank, 1st Lieut., Grinnell.
Park, Elmer Remle, Capt., Sioux City.
Park, Paul Archibald, 1st Lieut., Atkins.
Parker, Edward S., Major, Ida Grove.
Parker, Garner Forsemey, 1st Lieut., Pocahontas.
Parker, H. C., Major, Dubuque.
Parry, Roy Everett, 1st Lieut., Scranton.
Pascoe, Irvin John, 1st Lieut., Harvey.
Patchin, Horace Jarrett, 1st Lieut., Des Moines.
Patterson, Charles Luther, Capt., West Side.
Patterson, Samuel Tannier, 1st Lieut., Arthur.
Patton, Charles Wilbur, 1st Lieut., Laurel.
Paul, John Dale, 1st Lieut., Anamosa.
Payne, Rosewell Herschell, 1st Lieut., Des Moines.
Pearson, William Wilson, 1st Lieut., Des Moines.
Pease, Herbert, 1st Lieut., Slater.
Peck, Raymond Edward, Capt., Davenport.
Peck, John Hyren, Major, Des Moines.
Pelletier, Dyre Henry, Capt., New Hartford.
Pence, Lawrence Walde, 1st Lieut., State Center.
Pennington, Love Elree, 1st Lieut., Cherokee.
Peppers, John Lewis, 1st Lieut., Goldfield.
Peterson, Oscar Hedberg, Capt., Lamoni.
Phillips, William Chamber, Capt., Clarinda.
Pindell, Merl Lee, 1st Lieut., Macksburg.
Pitcher, Jonathan Jay, 1st Lieut., Mt. Pleasant.
Plummer, Herbert William, Capt., Lime Springs.
Plummer, George Alfred, Capt., Cresco.
Pond, Alanson Madison, Capt., Dubuque.
Porter, James Arthur, 1st Lieut., Hedrick.
Porterfield, Herbert De W., Lieut.-Col., Red Oak.
Powell, Burke, 1st Lieut., Albia.
Prentice, George Lee, Capt., Troy.
Prescott, Lee Washbon, 1st Lieut., Sloan.
Price, Alfred Stirgus, Major, Des Moines.
Priessman, Frank Albert, 1st Lieut., Mechanicsville.
Puffett, George Frederick, 1st Lieut., Ames.
Quick, Roy J., Lieut., Sioux City.
Raby, William Greenville, 1st Lieut., Ft. Des Moines.
Rankin, William, 1st Lieut., Keokuk.
Ransom, Harry E., 1st Lieut., Des Moines.
Rea, James Glen, 1st Lieut., Ft. Madison.
Redmond, William Henry, 1st Lieut., Cedar Rapids.
Redmond, John Patrick, Capt., Dysart.
Reed, Lloyd Thomas, 1st Lieut., Gravity.
Reed, Andrew Irvin, 1st Lieut., Grand Junction.
Reich, Louis Philip, Capt., Fredericksburg.
Reimers, Robert Stollt, 1st Lieut., Ft. Madison.
Reynolds, Harry Rogers, Capt., Clinton.
Reynolds, Earl Owen, 1st Lieut., Greenfield.
Rhine, Arthur Calvin, Capt., Hampton.
Rhodes, Frank Garretson, Capt., Sioux City.
Rice, Earl, Capt., Ames.

- Richardson, Everett Eugene, 1st Lieut., Webster City.
- Riggle, Frank Palmer, 1st Lieut., Cedar Rapids.
- Risk, Howard, 1st Lieut., Oelwein.
- Roberts, Jay Gilber, Capt., Oskaloosa.
- Robinson, Raymond Eugene, 1st Lieut., Lost Nation.
- Rock, J. J., Capt., Iowa City.
- Rodemeyer, Frederick Henry, 1st Lieut., Alexander.
- Rogers, Edwin Clarence, 1st Lieut., Wapello.
- Rogers, Claude Bernard, Capt., Earlville.
- Rohlf, Edward Louis, Capt., Waterloo.
- Roost, Frederick, Lieut.-Col., Sioux City.
- Rose, Alvin Axley, 1st Lieut., Gilbert.
- Rose, Jesse Clifford, 1st Lieut., Farmersburg.
- Ross, Jr., Arthur James, 1st Lieut., Perry.
- Rowley, William Garfield, 1st Lieut., Sioux City.
- Rubel, Harry Francis, 1st Lieut., Struble.
- Ruml, Wentzle, Capt., Cedar Rapids.
- Rush, Weaver Aldus, Capt., Malvern.
- Ruth, Charles Edward, Major, Des Moines.
- Ruyavitz, Joseph Larcher, Major, Duncombe.
- Ryan, John Gaston, Capt., New Sharon.
- Rybolt, Stephen Ballard, 1st Lieut., (deceased), Troy Mills.
- Saar, Jesse Lee, 1st Lieut., Cantril.
- Sabin, Albert Edward, 1st Lieut., Kirkman.
- Sage, Fred Carlton, Capt., Waterloo.
- Sallander, Frederick Warner, 1st Lieut., Sioux City.
- Sawyer, Prince Edwin, Capt., Sioux City.
- Scanlon, Franklin Raylor, Capt., Clear Lake.
- Schaefer, Paul Henry, Capt., Burlington.
- Schott, Harry Johnson, 1st Lieut., Sioux City.
- Schmaltz, Walter Franklin, 1st Lieut., Mount Ayr.
- Schooley, Alfred Heaton, 1st Lieut., Terril.
- Schroeder, Peter H., Davenport.
- Schrup, Joseph Henry, Capt., Dubuque.
- Schultz, Albert Andrew, Capt., Ft. Dodge.
- Scripture, James Levi, Capt., Clarksville.
- Seabloom, John L., Capt., Red Oak.
- Secoy, Frank L., 1st Lieut., Sioux City.
- Secoy, Harry Raymond, 1st Lieut., Iowa City.
- Seely, Charles Sidney, 1st Lieut., What Cheer.
- Seiler, Raymond Alvah, Capt., Blainstown.
- Sellards, Joseph Walter, 1st Lieut., Clarinda.
- Selman, Ralph Jackson, 1st Lieut., Blakesburg.
- Seymour, William Henry, Capt., Charles City.
- Shafer, Lee E., 1st Lieut., Davenport.
- Shane, Robert S., 1st Lieut., Pilot Mound.
- Shanon, Edwin Raymond, Capt., Waterloo.
- Shappel, Arthur E., 1st Lieut., Knoxville.
- Sheehan, Edward M., Capt., (deceased), Independence.
- Sheehy, Joseph Patrick, 1st Lieut., Sioux City.
- Shellito, Judd Campbell, 1st Lieut., Independence.
- Shelton, Charles Dalton, 1st Lieut., Bloomfield.
- Sherman, Alva Maynard, Capt., Clarinda.
- Shimer, Frank Elmer, 1st Lieut., Jesup.
- Shine, Dan William, 1st Lieut., Oelwein.
- Shirley, Wayne McKnight, 1st Lieut., Carroll.
- Shore, Francis Edward Victor, Capt., Des Moines.
- Shryer, Julius Lewis, 1st Lieut., Durant.
- Shuman, John William, Major, Sioux City.
- Simeral, Fred Ernest, 1st Lieut., Brooklyn.
- Simons, James Daniel, 1st Lieut., Indianola.
- Simpson, Charles Edward, 1st Lieut., Norway.
- Skallerup, Walter Martin, 1st Lieut., Walker.
- Skinner, George Coleman, Capt., Cedar Rapids.
- Slattery, Joseph Thomas, 1st Lieut., Dunlap.
- Smith, Walter Albert, 1st Lieut., Donnelson.
- Smith, Fred C., 1st Lieut., Keokuk.
- Smith, Channing Gamalial, 1st Lieut., Granger.
- Smith, Albert Dwight, 1st Lieut., Mason City.
- Smith, Charles Francis, Major, Des Moines.
- Smith, Jason Ned, 1st Lieut., Iowa City.
- Smittle, Jacob M., Capt., Waucoma.
- Snearly, George Earl, 1st Lieut., Goodell.
- Snitkay, Chas. John, Major, Belle Plaine.
- Snyder, John Allen, 1st Lieut., Roland.
- Sollenbarger, George Hartley, Capt., Corydon.
- Sollis, Delmar B., 1st Lieut., Bedford.
- Sparks, Francis Rufus, Capt., Waverly.
- Spaulding, George Albert, Capt., Avoca.
- Speers, Will Fred, 1st Lieut., Davenport.
- Sproule, Egbert Wilson, 1st Lieut., Peterson.
- Standeven, John Frank, 1st Lieut., Hancock.
- Stansbury, John E., 1st Lieut., Cedar Rapids.
- Stauch, Martin Oscar, 1st Lieut., Whiting.
- St. Clair, Frank Earl, 1st Lieut., Hampton.
- Steele, G. H., Capt., Belmond.
- Sterling, A. S., 1st Lieut., Newton.
- Sternberg, Walter A., 1st Lieut., Mt. Pleasant.
- Stewart, Alexander Porter, 1st Lieut., Inwood.
- Stewart, Edgar Allen, 1st Lieut., Salem.
- Stiers, John Wilford, 1st Lieut., Muscatine.
- Stober, Raymond William, 1st Lieut., Charles City.
- Stoecks, William August, Capt., Davenport.
- Stokes, Frederick Alexander (colored), 1st Lieut., Ft. Des Moines.
- Stokes, Hugo Benton, 1st Lieut., Ft. Des Moines.
- Stoner, Alva Porter, Capt., Des Moines.
- Strickling, Frank Ellsworth, 1st Lieut., Birmingham.
- Strong, Arthur Churchill, 1st Lieut., Burlington.
- Strong, Elliott Sheldon, 1st Lieut., Iowa City.
- Studebaker, John Franklin, Capt., Fort Dodge.
- Stuhler, Louis George, 1st Lieut., Monticello.
- Swanson, John Emil, Capt., Sioux City.
- Swezey, Andrew Jackson, Capt., Decorah.
- Swift, F. J. Major, Maquoketa.
- Sybenga, Jacob John, 1st Lieut., Pella.
- Talbott, Eugene Finch, Capt., Grinnell.
- Talboy, James Henry, Capt., Onawa.
- Talley, Louis Franklin, 1st Lieut., Diagonal.
- Taylor, John Quill (colored), 1st Lieut., Ft. Des Moines.
- Taylor, Roscoe Durr, 1st Lieut., Spencer.
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- Thomas, Clarence Irouth, 1st Lieut., Guthrie Center.
- Thomas, William Harper, 1st Lieut., McGregor.
- Thomas, Colin Gaudens, 1st Lieut., Monticello.
- Thomas, Hollis Sherman, 1st Lieut., Oakdale.

- Thompson, Howard Randall (colored), 1st Lieut., Ft. Des Moines.
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- Thornton, James W., Capt., Ackley.
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- Tidball, Charles Willis, 1st Lieut., Independence.
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- Van Meter, Fletcher Jackson, 1st Lieut., Clarinda.
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- Van Voorhis, Clyde Randolph, 1st Lieut., Prairie City.
- Vander Veer, Frank Leroy, Capt., Cedar Falls.
- Verpahl, Rudolph Augustus, 1st Lieut., W. Cedar Rapids.
- Voigt, Benjamin John, 1st Lieut., Spencer.
- Wahrer, Frederick Louis, 1st Lieut., Fort Madison.
- Walker, Ben S., Capt., Corydon.
- Walker, Will George, Capt., Corydon.
- Walker, John Milton, Capt., Dubuque.
- Walker, John Riley, Capt., Ft. Madison.
- Wallace, Louis O. S., 1st Lieut., Cherokee.
- Wallace, Robert More, 1st Lieut., Algona.
- Wallace, James Carroll, 1st Lieut., Ft. Des Moines.
- Walsh, Thomas Nelson, 1st Lieut., Hawkeye.
- Ward, Dell Warner, 1st Lieut., Oelwein.
- Ward, Loraine William, 1st Lieut., Fairbank.
- Waters, Ralph Milton, Capt., Sioux City.
- Watkin, Clifford Roy, 1st Lieut., Sioux City.
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- Wenzlick, Geo. John, 1st Lieut., Iowa City.
- Wescott, LeRoy Anderson, Capt., Cherokee.
- West, Harry Delbert, 1st Lieut., Des Moines.
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- Wirsing, Arnold Oswald, 1st Lieut., Iowa City.
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- Zuercher, Arlo Richard, 1st Lieut., Cedar Rapids.

GOVERNMENT NEEDS PHYSICIANS

The United States Civil Service Commission announces that a large number of physicians are needed for employment in the Indian Service, the Public Health Service, the Coast and Geodetic Survey, and the Panama Canal Service. Both men and women will be admitted to examinations, but appointing officers have the legal right to specify the sex desired when requesting the certification of eligibles.

Entrance salaries as high as \$200 a month are offered, with prospects of promotion in some branches to \$250, \$300, and higher rates for special positions.

Further information and application blanks may be obtained from the secretary of the U. S. Civil Service Board at Boston, New York, Philadelphia, Atlanta, Cincinnati, Chicago, St. Paul, St. Louis, New Orleans, Seattle or San Francisco, or from the U. S. Civil Service Commission at Washington, D. C.

FOR MEDICAL EDUCATION

At a meeting of the General Education Board of the Rockefeller Foundation, appropriations aggregating \$1,108,525 were made to various educational institutions throughout the United States. The largest amounts of this sum were given to medical education, \$400,000 being given to Johns Hopkins University Medical School for the endowment of a department of obstetrics, and \$150,000 to the Medical College at Nashville, Tennessee.—New Orleans Medical and Surgical Journal.



LIEUT.-COL. JAMES F. CLARKE, Commander Hospital Unit R.
Fairfield, Iowa

Served throughout Spanish War, Major and Surgeon 49th Iowa Vol.
Inf., Florida and Cuba.

Organized Hospital Unit R. in Southeast Iowa.

Entered service August 20, 1917.

Took Hospital Unit R. overseas February 16, 1918.

Chief of operating team No. 23 France.

Sometime Commanding Officer Base Hospital No. 32 American Red
Cross, Military Hospital No. 5.

Returned overseas April 18, 1919.

Discharged May 10, 1919.

The Journal of the Iowa State Medical Society

D. S. FAIRCHILD, Editor.....Clinton, Iowa

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IMPORTANT FACTS IN RELATION TO ARMY MEDICAL SERVICE

Herbert A. Bruce, M.D., F.R.C.S., Eng. Colonel British Army Medical Service, and C.A.-M.C., Associate Professor Clinical Surgery University of Toronto, in a paper published in the Canadian Medical Association Journal calls attention to some important facts growing out of experience obtained in the war service with the British forces, particularly in relation to anesthetics:

"I am able to take some credit for their employment, (anesthetics), in the British Army, as I had urged it upon the director-general of the British Medical Service sometime previously, but what really made this epoch-making change possible was the wonderful work of the American nurse anesthetists, who went over with the six hospitals sent by the United States early in 1917 to staff British base hospitals in France and of Miss Nickolson, the nurse anesthetist with No. 3, Canadian General Hospital. Their splendid work convinced the director-general and the British consultants of the value of women (without degrees in medicine) as anesthetists. British surgeons soon became enthusiastic supporters of nurse anesthetists, and if the war had continued, there is no doubt they would have ultimately replaced medical officers in the giving of anesthetics in the British service. This would have released more than five hundred doctors for other much needed work. Nurse anesthetists are employed almost exclusively in the American Medi-

cal Service, and most surgeons serving in France are now convinced that women make ideal anesthetists and their employment in increasing numbers in civil hospitals is assured."

Other things in Colonel Bruce's paper are worth considering. One, often referred to by army surgeons from civil life in our own country, which in some way ought to reach Congress in the formulating of an army bill but probably will not.

Colonel Bruce says, "One of the most iniquitous things in the medical service was the necessity of eminent medical men being subservient to the administration heads because the latter controlled promotions, honors and decorations. This war has conclusively demonstrated the fact that the permanent medical organization is not able to cope with the medical and surgical requirements of the army without help from the profession in civil life. It may be said that surely medical men are above such sordid influences as those referred to above, and may at once point out that the doctor who leaves his practice and joins a military medical service, puts his professional reputation in the hands of those in authority in that organization. They can either make or mar him and it is well known that it is not necessarily the ablest physician or surgeon who is given the premier position in a military medical organization. In fact one can assert without exaggeration that frequently the reverse is the case."

"How then are we to ensure the most efficient medical and surgical service to our wounded? In my opinion, which is shared by the well informed, only by placing in full control of the treatment of the sick and wounded, medical men and surgeons who have proved their superiority in civil life. Such, I believe can in no way detract from military efficiency, inasmuch as the administration heads will be left in control of discipline and organization outside of all purely technical affairs."

We might add to Colonel Bruce's comments in relation to the army medical service the fact that the famous Rainbow Division had in all its department even as executive heads exclusively surgeons from civil life, from the time the Division entered combat service to the end of the war, and this Division as shown by the reports, rendered the best surgical services including the disposition of the sick and wounded and also the treatment of sick and casualty cases. It is true that the executive heads of the Division had had considerable experience as National Guard Medical Officers but none of them notwithstanding their experience and efficiency could remain in the service on account of certain army regulations.

Colonel Donald Macrae has on several occasions pointed out the indifference of the medical pro-

fession in securing better recognition of medical officers. It is clearly the duty of surgeons in civil life to urge a medical organization that will be efficient in time of war and thus prevent such avoidable loss of life as has been witnessed in the last three wars, which are fresh in our minds. In ten years more if we should have a war we shall probably repeat the folly of the past. There are in the regular service medical officers of the highest character and efficiency who understand the needs of the army but are helpless because of regulations, their lips are closed and it remains with us as medical men and citizens to mend the situation. We should not criticise regular medical officers, the fault is not theirs but the system under which they serve.

RADIUM TREATMENT IN CANCER OF THE LIP

Janeway reports on the treatment of twenty-four cases at the Memorial Hospital, New York. Of these, eight were superficial early lesions and sixteen were well-established cancer, with deep invasion of the tissues of the lip. With the exception of three cases now under treatment, and at present doing well, but who had advanced lesions when they applied for treatment, the patients have all been well and are free from evidence of disease. The technic employed by Janeway was as follows: He applies radium emanations embedded in molds of the dental compound and filtered through the thinnest material for the most superficial lesions. As a matter of convenience he has used 0.5 mm. of silver which has been unnecessarily heavy for the most superficial lesions, it has given uniformly satisfactory results in his cases. For the deeper lesions, however, nothing has surpassed the progressive, smooth and complete retrogression produced by filtration through 1 m.m. of platinum. The tubes should be sunk 5 m.m. in the dental compound, and for the ordinary lesion the dose should be 60 m.c. hours per square centimeter, when the filtration is through 0.5 m.m. of silver, and 100 m.c. hours per square centimeter when through 1 m.m. of platinum.—Progressive Medicine.

We have recently had the merits of vaccines and antitoxins set before us. With the exception of typhoid vaccines, tetanus and diphtheria antitoxin there may be a wide difference of opinion as to their value. The merits of E. R. Squibb and Sons laboratories are established. We have just finished reading an elaborate discussion by Professor Nolf of Paris in the *La Presse Medical* on Intravenous Injections of Peptone in Infectious

Diseases with equal or better results than the use of mixed or so-called specific vaccines.

The Journal of the Canadian Medical Society says, "Referring to graduate study, instead of going to Berlin and Vienna for their post-graduate course, young American doctors are likely to go to London, where an exclusively American hospital is about to be built. A meeting will be held to consider the plans at the house of the Royal Society of Medicine; Lord Reading will preside. The scheme, of which Dr. Philip Franklin, the aural surgeon, has been the prime mover, is the result of the close contact of United States and British medical men during the war. Already, in England, there are about two hundred American doctors taking the post-graduate course of the Fellowship of Medicine. The new hospital will become the headquarters for United States medical students who come to Europe, and will be the center from which the post-graduate will be able to make use of the exceptional clinical material offered by London and the provinces."

We may in turn advise young English doctors who desire to supplement their home training with foreign graduate study to come to America.—(Editor.)

THE LIQUOR TRAFFIC AND THE PUBLIC HEALTH

The London Lancet is commenting on the effect of restrictive legislation on the liquor traffic shows quite a remarkable improvement in conditions of health and crime in England and Wales. Taking the year 1913—(the year before the war) it appears from the official returns that in England and Wales 1831 deaths certified as due to or connected with alcoholism. In addition to these there were 388 deaths attributed to cirrhosis of the liver. There were 1226 infants under one year of age suffocated in bed, more than a quarter of the mortality occurred on Saturday nights (following half holidays). In the Poor-law-infirmarys 786 patients were treated for delirium tremens. In the same year the number of convictions for drunkenness amounted to 188,877 or at the rate of 1 to 135 of the population over fifteen years of age. Taking now the year 1918, the deaths from alcoholism were 296, a reduction of over 84 per cent on the 1913 level. Deaths from cirrhosis of the liver fell to 1671, a decline of nearly 60 per cent. Infants from suffocation 557 or 55 per cent less than in 1913 with no Saturday night incident. In 1918 only thirty-two were treated for delirium tremens in Poor-law-infirmarys, a decrease of 95 per cent in 1918. Convic-

tions for drunkenness in 1918 were 29,019 or $\frac{1}{2}$ for the year 1913.

That this decrease of drunkenness was not due in any considerable measure to so many men abroad in the army is shown by the deaths among women. In 1913 there were 719 deaths among women from alcoholism; in 1918 there were 74, a reduction of nearly 90 per cent. In 1913 there were 1665 deaths among women from cirrhosis of the liver; in 1918, 579, a reduction of nearly 50 per cent. Delirium tremens in women in 1913, 214, in 1918, 6. Convictions of women for drunkenness decreased from 35,765 in 1913 to 7,222 in 1918. A reduction of about 80 per cent.

Quoting from the editorial the *Lancet* says: "Those figures provide adequate proof that during the war there has been in this country a real and substantial decrease of alcoholism; and since the greater part of it followed immediately on the enforcement of the war-time regulations for the control of the liquor traffic, it is legitimate to conclude that regulations were the chief agents in bringing about the improvement in national sobriety."

"Alcoholism is, of course, a much bigger factor in the causation of disease and mortality than is shown in official statistics, which necessarily represent only its most extreme and obtrusive results; and the improvement effected through the system of liquor control is correspondingly more important than is indicated by the evidence summarized above; but even if that evidence be taken merely at its face value, it will enable us to form some idea of the price measured in terms of health and efficiency, which the community would have to pay for the full restoration of pre-war conditions in the liquor trade."

TUBERCULOSIS ENDOCARDITIS

H. H. Barbier presented a case of tuberculous endocarditis before the *Société Médicale Des Hôpitaux Paris*, in which he stated that he had had occasion to observe recently a case of chronic tuberculous endocarditis leading to mitral insufficiency with extension of the lesions to other valves of the heart. This observation together with preceding ones, tended to show that from a clinical point of view tuberculous endocarditis could provoke all the lesions of the orifices of the heart including mitral and also aortic insufficiency.

The peculiarity of tuberculous cardiopathes is their extreme gravity. When the asylole is apparent death usually occurs within the year, often within a few months.—*La Presse Médicale*.

THE POET SCHILLER

The *New York Medical Journal* for October 18, 1919, contains an interesting editorial on literary medical men and particularly the poet Schiller, whom the writer designates, "The Poet of Humanity." Although Goethe occupies the first place among German poets as a genius of the rarest order, Schiller has the strongest hold on the popular imagination.

Schiller was a medical man and a German regimental surgeon. He was trained in the vigorous military methods, "Like Goldsmith, but unlike Rabelais, Schiller was not a student of medicine from choice. By the interest of his patron, the Duke of Wurtemberg, he joined a school at Stuttgart. At the school it was necessary that a scholar should choose his profession in order that he might be thoroughly trained in it. At first, his choice was the law and medicine was selected afterward. Not because Schiller liked medicine, but because it was less obnoxious to him than law." As said by Carlyle, "The process of teaching and living was conducted with the stiff formality of military drilling, everything went on by statute and ordinance, there was no scope for the exercise of free will, no allowance for the varieties of original structure." So he became a poet and an author. Two years before he became a doctor he wrote the tragedy, "The Robbers." The drama was not published until he had gained his degree for fear it might prejudice him with his instructors. It gave offense to his patron, the Duke, Schiller was arrested, but escaped from the jurisdiction of the Duke of Wurtemberg. In 1785 he went to Leipsic and thence to Dresden, and in 1787, he made his home in Weimer where he formed the acquaintance of Goethe. Schiller was a poet and a historian. His great poem was "William Tell."

Schiller died of tuberculosis at Weimer May 9, 1805. He had suffered from this disease throughout life.

RADIUM TREATMENT

Dr. E. C. Samuel in the *New Orleans Medical and Surgical Journal* expresses an opinion in relation to radium therapy.

"Radium offers greater hope in malignancy of the uterus than in any other part of the body. The most striking results are obtained in fibroid, but all fibroids are not amenable. Lymphosarcoma is markedly benefitted. He does not find much benefit from radium treatment of malignant disease elsewhere in the body, with the exception of recurrent nodules after breast amputation."

SIBERIAN COMMISSION REPORTS

Activities of the American Red Cross will be continued in Siberia because of the great need of the people in that region. Continued fighting has prevented the return of hundreds of refugees to their homes before the coming of winter. This means that the crowded conditions due to inadequate housing and poverty will cause widespread sickness and there is no other agency to combat disease in the country except the Red Cross.

Reports of the Siberian Commission, just received, tell that the military hospitals are in a most wretched state. Surgical supplies and medicines are practically exhausted. There is no bed linen. Absence of soap and disinfectants makes cleanliness and asepsis impossible. The hospitals themselves are frequently amusement pavilions, monasteries, or clubs which have been converted into wards. Patients are brought in on trains of cattle cars stuffed with dirty straw. At one hospital the doctor said that because of the condition in which the patients were brought to him, the mortality rate was 10 per cent.

Medical and nurses' stuffs have been greatly depleted through the contraction of typhus, exposure, and the descent of the Bolsheviki who carried away physicians with them. In several cases woman doctors were found to have been drafted into service and were in charge of the hospitals. High praise is given to the brave Russian women who have been fighting disease and wounds in the midst of such unfavorable conditions for five years, with such terrible odds against them, and suffering not only from privation but from uncleanness, vermin, and the diseases themselves.

The Red Cross is operating several hospitals during the emergency. Preparations are being made for the expected increase of typhus and smallpox cases which is sure to come with winter.

One of the most interesting phases of the relief work being done in Siberia by the Red Cross is the operation of a hospital in Tomsk. The Medical College of that city operates a hospital during the winter months which is closed, temporarily, every summer; this year the Red Cross secured permission to continue the hospital. The salaries of the doctors were paid, and also the expense of equipment and upkeep. American Red Cross doctors have been working in the hospital in cooperation with the Russian doctors.

As fast as trains can be sent, equipment and supplies are going to the military hospitals. With the coming of spring, medical and nursing members of the commission hope that the health conditions of the country will be greatly improved.

TYPHUS EXTERMINATED IN SERBIA

The five-year campaign which American Red Cross doctors and nurses have been waging against typhus in Serbia has ended victoriously. The recent report of the Serbian commission states that there are but sixty-five cases in the country, two-thirds of these

being in Belgrade where the Red Cross operates a hospital for typhus cases only.

The first unit organized to fight typhus in Serbia was headed by Dr. Richard L. Strong, and arrived just five years ago. The invasion of the Austrians forced the unit to flee from the country. The subsequent famine and exposure endured by the Serbs served to increase the spread of typhus during the next two years.

During 1915, 150,000 persons died of the disease in a population of three million. One hundred and fifty doctors succumbed, so that after the Serbian army defeated the Austrians and work was taken up by the Red Cross there was only one doctor to every 75,000 persons. In towns of 4,000 population there was usually not one physician, although the number of typhus cases ranged from ten to thirty. There was one surgeon and one dentist in the whole country.

The free dispensary was the foundation of the campaign against typhus in Serbia. Dispensaries were established at the most advantageous points. Medical units working from these main points penetrated far into the interior of the country. Soup kitchens were established to fight malnutrition; farmers were assisted to return to their homes; housing conditions in cities were improved; hospitals were operated by the Red Cross and worthy institutions under other direction were furnished with needed supplies and equipment.

"It may seem strange," writes Lieut.-Col. Edgar Erskine Hume of Frankfort, Kentucky, present director of the American Red Cross Commission in Serbia, "but our doctors and nurses conquered the plague by using laundry soap, scrubbing brushes, kerosene, disinfectants, and delousing machines. We went into the homes of the people and carried the patient out. At times they were reluctant to leave, and we had a hard task overcoming their fatalism. We had to use force, for left to themselves they would have allowed the disease to run its course, which meant death not only to themselves, but to others."

Since typhus has been practically exterminated, the commission has turned its efforts toward instilling the principles of hygiene, sanitation and nutrition in the minds of the people. Appreciating the victory of the Red Cross, prominent citizens are organizing to assist in keeping the country free from the plague, which there appears in its most malignant form.

MOTOR CAR DEATHS INCREASE

Automobiles in New York State, including the city, killed 127 persons during the month of August, as compared with 97 for the corresponding month last year, according to the report of the National Highways Protective Society. Sixty-two persons were killed by motor cars in the City of New York during the month of August, one by a wagon and one by a pushcart. In New Jersey, during August, automobiles caused the death of twenty persons, compared to nineteen in August, 1918.—Medical Record.

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For further information apply to Dr. Henry G. Langworthy, chairman Foundation Fund Committee, corner Tenth and Bluffs streets, Dubuque, Iowa, or Dr. William B. Peck, managing director, Tri-State District Medical Society, Freeport, Illinois.

MONEY FOR MEDICAL EDUCATION

The General Education Board, founded by John D. Rockefeller, has announced the gift by him of \$20,000,000 for the improvement of medical education in the United States. The income of the gift is to be used concurrently and the principal to be distributed within fifty years.—New York Medical Journal.

SCHOLARSHIP FOR NURSES

The American Red Cross has announced an appropriation of \$100,000 as a scholarship fund to induce graduate nurses released from the army and navy corps to train for public health nursing. A maximum scholarship of \$600 will be granted for an eight months' course of training and \$300 for a four months' course. The fund will be administered by the Red Cross Department of Nursing, and scholar-

ships will be granted on the recommendation of Red Cross division directors of public health nursing.—New Orleans Medical and Surgical Journal.

CASUALTIES IN MEDICAL SERVICE

It has been announced recently by the surgeon general of the United States Army that 442 casualties occurred among the medical officers of the American Expeditionary Forces in France from July 7, 1917, to March 13, 1919. Of these, 22 died of wounds, 9 of accidents, 101 of disease; 46 were killed and 7 were missing in action; 4 were lost at sea. There were 36 prisoners unwounded, 47 wounded in action (degree undetermined); 93 severely wounded in action, and 72 slightly wounded.—The Boston Medical and Surgical Journal.

AMERICAN MEDICAL EDITORS' ASSOCIATION

The fifty-first annual meeting of the American Medical Editors' Association will be held at the Grunewald Hotel, New Orleans, Louisiana, on Monday and Tuesday, April 26 and 27 (during the week of the A. M. A. convention) under the presidency of Dr. Seale Harris, editor of the Southern Medical Journal.

A most interesting program has been arranged and every doctor, even remotely interested in medical journalism, will find it to his advantage to attend.

It is advisable for you to make early reservation of rooms to assure you of accommodations.

PENNSYLVANIA DEPARTMENT OF LABOR AND INDUSTRY

Tenth Conference of Industrial Physicians and Surgeons, State Capitol, Harrisburg, Pennsylvania, Thursday, March 25.

Morning Session, 9:30 A. M.—Chairman—Dr. Francis D. Patterson, Chief, Division of Industrial Hygiene and Engineering, Pennsylvania Department of Labor and Industry. Address of Welcome—Hon. Clifford B. Connelley, Commissioner, Pennsylvania Department of Labor and Industry. 1. The Rehabilitation of the Industrial Cripple.—Dr. Harry E. Mock, President, American Association of Industrial Physicians and Surgeons, Chicago, Illinois. 2. The Problem of the Malingerer—Dr. Judson C. Fisher, New York City. 3. Heart Disease in Relation to Industrial Efficiency—Dr. William E. Robertson, Philadelphia, Pennsylvania. 4. The Physically Substandard Worker—Dr. Irving Clark, The Norton Company, Worcester, Massachusetts.

Afternoon Session, 2:00 P. M.—1. Influeza—Dr. Alfred Stengel, Professor of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania. 2. Health Education in Industry—Dr. C. E. Ford, General Chemical Company, New York City. 3. Plant Dispensaries and Their Equipment—Dr. C. D. Selby,

Toledo, Ohio. 4. Occupational Diseases and Their Compensation—Dr. Frederick Hoffman, Third Vice-President and Statistician, Prudential Insurance Company of America, Newark, New Jersey.

SOCIETY PROCEEDINGS

Cherokee County Medical Society

The Cherokee County Medical Society met in monthly session Wednesday, January 7, at the State Hospital. Dr. Jepson of Sioux City gave the principal address, speaking on Intestinal Infection. The annual election of officers resulted in the following choice: President, Dr. T. C. Knox of Marcus; vice-president, Dr. L. A. Wescott of Cherokee; secretary and treasurer, Dr. Paul E. Allen of Cherokee.

Crawford County Medical Society

The Crawford County Medical Society held a business meeting at the Hotel Denison, Wednesday, January 7, which was followed by a banquet.

Two committees were named at this meeting as follows: Program committee, Dr. L. L. Bond, Dr. C. E. Yoder, and Dr. J. J. Meehan. Legislative Committee, Dr. S. H. Huber, Dr. F. N. Rowe and Dr. S. M. Merriam.

The following physicians were in attendance at the meeting: Dr. H. D. Jones, Schleswig; Dr. S. H. Huber, Charter Oak; Dr. C. H. Heren, Charter Oak; Dr. M. M. Loomis, Manilla; Dr. S. M. Merriam, Deloit; Dr. L. L. Bond, Dr. P. J. Brannon, Dr. E. C. Yoder, Dr. J. J. Meehan, Dr. F. N. Rowe, Dr. W. B. Wilkinson, of Denison.

Jasper County Medical Society

The Jasper County Medical Society met in the library Tuesday evening, January 13, and elected officers. President, Dr. F. L. Smith, Newton; vice-president, Dr. C. R. VanVoorhis, Prairie City; secretary and treasurer, Dr. C. E. Broderick, Newton.

Keokuk Physicians Club

The Physicians Club held their regular meeting January 13 at 6 o'clock in the private dining room of the Y. W. C. A. where the members had dinner together. Dr. R. E. Barnes of Lawrence, Kansas, who has been stationed at Fort Bayard, New Mexico until recently, was an out of town guest at the dinner.

The special business which was transacted last night was in regard to plans for a special program which will be given at the next regular meeting of the club, February 10. Dr. S. R. Kelman, the secretary reported this morning.

Marshall County Medical Society

Following a joint dinner at the Marshalltown Club at 6 o'clock Tuesday night, January 6, the monthly meetings of the Marshall County Medical Society and the Marshall County Dental Society were held in the offices of Drs. French and Cobb and Dr. L. F.

Kellogg, respectively. Programs of interest to the two professions were given.

At the meeting of physicians the general subject was Sinus Infections and papers were read by Dr. Otis Wolfe and Dr. R. F. French.

No set program had been arranged for the meeting of the dentists but at a round table session subjects of general interest to the profession were discussed.

Scott County Medical Society

About thirty members of the Scott County Medical Society heard a most interesting stereopticon talk on Base Hospital Activities in France by Dr. Herbert Decker Wednesday evening, January 7. Dr. J. D. Blything was also installed as president of the society. The meeting was held at Hotel Blackhawk and followed a dinner served for members of the society in one of the private dining halls.

Wayne County Medical Society

At the recent meeting of the Wayne County Physicians the following gentlemen were elected as officers of the association for the ensuing year: President, Dr. A. E. Davis, Seymour; vice-president, Dr. W. G. Walker, Corydon; secretary-treasurer, Dr. G. H. Sollenbarger. Board of Censors: Dr. U. L. Hurt, Seymour; Dr. B. S. Walker, Corydon; Dr. G. W. Hinkle, Harvard. Delegate: Dr. B. B. Parker, Allerton. Alternate: Dr. W. G. Walker, Corydon.

Woodbury County Medical Society

The Woodbury County Medical Society met in regular session at the West Hotel, Sioux City, January 15, with the following program: Radium Therapy, Dr. C. E. Bosley, Sioux City; X-Ray Therapy, Dr. R. F. Bellaire, Sioux City.

The officers for this year are: President, Dr. Chas. A. McHugh; vice-president, Dr. Frederick A. Roost; secretary-treasurer, Dr. Louis D. Cheney; delegates, Dr. Wm. Jepson and P. B. McLaughlin, all of Sioux City.

Armour laboratory has in operation what is said to be the greatest sterilizing apparatus in the world for the exclusive use of medical and surgical products. Any desired temperature may be obtained in the automatically regulated chambers.

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MEDICAL NEWS

The doctors of Woodbury county and the surrounding towns have decided that with the advance of prices in all fields of work, it has become necessary for them to raise their fees accordingly. Following are the most important changes made in their schedule: Day visits in town, 7 a. m. to 9 p. m., medicine extra \$3. Night visits in town, 9 p. m. to 7 a. m., medicine extra, \$4. Country visits, minimum \$4, per mile or fraction thereof added to the above fee, \$1. Obstetrical attendance \$25. Office consultation with medicine extra, \$1 up. Enucleation of tonsils, \$35 up. Removal of adenoids (anaesthetics extra), \$20 up. General anesthetic, \$10 up. Cases requiring special care, skill or attention, or extra time will be charged for in proportion. The above schedule does not include the fees for fractures and dislocations, but a general adjustment of prices has been made for this work too.

Dr. Henry Matthey, who has been spending several months visiting his two sisters in Switzerland, is now a passenger on the steamer Rotterdam which is expected to land in New York within a few days. From New York Dr. Matthey will return direct to Davenport and resume his practice.

January 5 was the date of Dr. W. A. Rohlf's birthday anniversary, and for the past six or seven years he has celebrated the event by holding a clinic at Mercy Hospital in Waverly, to which he invites a number of prominent physicians from larger cities and all the physicians from nearby cities and towns. So popular have these clinics become that they have practically become an organization of doctors for this section and only the most urgent cases prevent any of the doctors from being in attendance.

PERSONAL MENTION

Dr. David E. Rouse, until June head of the Des Moines City Health Department, was in charge of the American Red Cross Hospital at Irkutsk, Siberia, which recently was captured by the Bolsheviks.

Dr. Robert Powers, son of Dr. H. A. Powers, a graduate of Rush Medical College, will open an office in Emmetsburg in connection with his father.

Dr. Stewart Bowman has located in Maquoketa.

Dr. Charles E. Magown has been appointed county physician by the board of supervisors to succeed Dr. G. E. Barr.

Dr. J. H. Fraser of Clear Lake has moved to Mason City.

Dr. J. L. Youngs, formerly of Low Moor and Mechanicsville, has associated himself with Dr. Scripture of Clarkville in the practice of medicine.

Dr. M. C. Mackin, superintendent of the Iowa State Inebriate Hospital at Knoxville, has been appointed assistant alienist to the State Hospital for Insane at Skellman, New Jersey.

Dr. Wm. Jepson of Sioux City has made a generous gift to Methodist Hospital and Orphanage Work at Sioux City. Dr. Jepson has given a farm of 283 acres adjoining Sioux City. According to the Sioux City Journal this gift has been accepted.

Dr. H. B. Young of Burlington celebrated his fortieth year of practice Friday, December 26, 1919.

Dr. E. E. Magn of Waterloo is taking a post-graduate course at Harvard University School of Medicine.

OBITUARY

Dr. Justin F. Simonds, aged ninety-three years, who until the time of his death was probably the oldest living person who ever lived at Iowa Falls, died at the residence of his son, Dr. Edward B. Simonds, at Riverdale, Md., Saturday, January 3. He named the City of Iowa Falls in Hardin county and helped in the planning of it.

Dr. Simonds was the only physician in the radius of one hundred miles, and in the early fifties, when the frontier settlements were swept by smallpox, he attained great success in the treating of the disease and stamping out the plague by original methods.

Born June 18, 1826, in Pawlet, Vt., nearly a century ago, he graduated in medicine in 1847 at the College of Physicians and Surgeons in Albany, N. Y., and moved to Iowa to practice his profession.

Dr. J. S. McConnaughey died at Wayland, January 7. He was born in Laurence county, Pennsylvania, July 8, 1837, and with his parents immigrated to Iowa in 1853, and in 1855 to Washington, Iowa.

His earlier education was received in the public schools of Pennsylvania, afterwards attending the United Presbyterian College and Academy at Washington, Iowa. Later he attended the Rush Medical College, Chicago, and Keokuk Medical College from which he received his diploma in 1867.

In response to his country's call for troops he enlisted on November 1, 1861, Co. F. 11th Iowa Infantry. The following winter, 1861-2, was disabled and discharged; again re-enlisting September 23, 1862, serving with the army of the west at Vicksburg, again being discharged in 1863.

He began his profession at Riverside, Iowa, remaining there until 1869 when he removed to Wayland, then called Marshall, practicing there for seven years. Again removing to Washington county, Iowa, where the family lived for five years. Later practicing at Avoca, Iowa, Sigourney, Iowa, Washington and then back to Wayland, where he has practiced his profession until a few years ago.

He was married in 1867 to Josephine Terry, of Washington, who with two sons, Dr. J. T. McConnaughey, of Winfield; Harry D. of Chicago and daughter Grace at home, another daughter, Baja Quetta, who died in 1879.

Dr. L. Torrence of Blakesburg, who has practiced medicine in this vicinity for the past forty-five years,

died at 10:30 o'clock, January 8, at St. Joseph's Hospital, Ottumwa.

Dr. Torrence was seventy-three years old. He was born in Palmyra, Missouri, in 1846, and had lived in Blakesburg for the past thirty-two years.

Dr. James David Blake was born in Noble county, Ohio, on November 25, 1838 and died on the evening of December 7, 1919 at about 10:30 p. m. at the age of eighty-one years. His primary education was obtained in the schools of his native state and later he attended Marietta College for four years, but was prevented from getting his Liberal Arts Degree by the Civil War which caused the college to close and its students to join in the military defense of the country. He taught eleven winter terms of school. He then chose the medical profession and received his medical training in the Starling Medical College at Columbus, Ohio, and graduated in 1869 receiving the degree of M. D. In the meantime he practiced medicine for four years under the direction and with Doctor Schelberry of Lowell, Ohio, and came to Iowa in June, 1870, and located at Palmyra.

Dr. Blake was married in Janesville, Ohio, April 9, 1863 to Miss Hannah E. Kelly.

Dr. Blake continued practice up until the day of his death, or for the period of fifty-four years. He was a member of the County and State Medical Societies and has one of the best medical libraries of the state.

Dr. W. L. Bullis, a prominent physician of Wayne County, Iowa, for forty-nine years, died very suddenly at his home of heart disease at the age of seventy-four years. He was a graduate of the University of Pennsylvania. Dr. Bullis is survived by his wife and daughter.

Dr. A. M. Lakin, a pioneer doctor at Yale, Iowa, died at the Methodist Hospital, Des Moines, January 19, following an illness of three months' duration. Dr. Lakin was sixty-two years old and had been a practicing physician at Yale for the last thirty-five years.

A. M. A. NEWS

New Orleans session, April 26-30. General headquarters at Hotel Grunewald; Iowa headquarters, Hotel Grunewald.

Rates have not as yet been announced but will be, no doubt, one and one-third fare for round trip as usual.

The plan is for Iowa to use two Pullman sleepers from Chicago, attached to a special or Journal train, and leave Chicago over the Illinois Central Sunday, April 25, arriving at New Orleans, next day about noon. All wishing choice Pullman reservations, whether they go with, before or after, the special or Journal train, should write at once to Mr. H. S. Gray, Illinois Central Division Passenger Agent, at Duquaque, Iowa, and all of those who have not secured hotel reservations in New Orleans, should write at

once to Dr. J. J. Wymer, chairman hotel committee, New Orleans, and state kind of accommodations desired.

The interest manifested justifies the statement that Iowa will furnish, at least, one hundred for the trip, and New Orleans will be royal entertainers and promises to put on the famous Mardi Gras for the doctors.

For further information write Dr. J. W. Cokenower, Des Moines, chairman committee on transportation.

NEWS NOTES

Dr. Katherine L. Storm of Philadelphia, is announcing the removal of her offices from 1541 to 1701 Diamond Street, Philadelphia. The new building which Dr. Storm has purchased, has treble the capacity of her present building, and is being equipped with every facility for quick and exact work. Dr. Storm is justly proud of the ever widening demand for the Storm Binder and Abdominal Supporter, and is planning to maintain her reputation for immediate response to each order.

Dr. R. B. H. Gradwohl, the announcement of whose St. Louis Biological Laboratories has appeared in the columns of this Journal, has opened a Chicago Laboratory, and has taken a suite of rooms in the Chicago Savings Bank Building, corner Madison and State streets, Chicago, Illinois.

This laboratory is supplied with the very latest and best equipment for rendering physicians efficient service. Dr. Gradwohl's announcement with complete information as to his Chicago office, appears on another page of this issue.

Armour and Company will be pleased to send a reprint of Frederic Fenger's article "On the Seasonal Variation of the Iodin Content in the Iodin Gland" to any physician who will ask for it. This paper records work covering more than twelve months, which work was done in the Research Laboratory in Organotherapeutics of Armour and Company. Address Armour and Company, Chicago.

BOOK REVIEWS

PROGRESSIVE MEDICINE

A Quarterly Digest of Advances, Discoveries and Improvements in The Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Assisted by Leighton F. Appleman, M.D. Lea and Febiger, Philadelphia and New York. Price \$6.00 Per Annum.

The September number, distinctly a medical number, gives a review of the literature on several important subjects. The author in this review is William Ewart, M.D., F.R.C.P. of London. The author says, "After the late war's destructive ordeal the ob-

Sixty-ninth Annual Session

IOWA STATE MEDICAL SOCIETY

Des Moines, May 12, 13, 14

Owing to the presence of over 7000 delegates, who will attend the General Conference of the Methodist Church during the month of May, the hotel accommodations of Des Moines will be taxed to their utmost capacity.

It is imperative that hotel reservations be made at once by all those who anticipate attending the coming session of the Iowa State Medical Society.

Forewarned is Forearmed. Do not Delay

Secure Your Reservations at Once

The following is a partial list of hotels to whom you may write.

Fort Des Moines	Savery III	Chamberlain	Kirkwood	Franklin	Brown	Randolph
Elliott	Cargill	Wellington	Victoria	Lloyd	Foster	

jective is not mere reconstruction, but regeneration of national health on sounder foundations." This is more appreciated in England than in the United States. English papers are devoting much space to the discussion of health problems while the papers of our own country scarcely give the subject a thought, being devoted to business reconstruction and money getting, as the representatives of financial interests. The first section of the review relates to tuberculosis. The principle contribution of the war is the practical study of vitamin, which seems to be of essential importance in relation to a diet. In addition to tuberculosis other diseases of the lungs and pleura are considered.

The heart and blood-vessels, particularly syphilis and cardiac disease. A warning is given in relation of tobacco to neurasthenics, "Since the commencement of the war tobacco has obtained far too great a hold on the community generally, but I doubt whether the medical profession has fully appreciated the craving which neurasthenics have for tobacco and especially in the form of cigarettes. A most prejudicial vicious circle becomes established, and, as one patient has stated, the inhalation of cigarets is one of the causes of this disability. Neurotic patients who are candid with themselves and their medical advisors recognize this fact; but their loss of self-control prevents their breaking the habit. It is for the medical profession to assist them. But much more good might be achieved in the line of preven-

tion by some authoritative pronouncement which will save a large number of susceptible subjects from drifting unawares into nervous degeneracy."

Cardiac conditions in pernicious anemia and rheumatism are reviewed. Dermatology and syphilis is reviewed by William Gottheil and obstetrics by Edward P. Davis. A rather extensive review of literature relating to obstetrics appears, of practical and helpful things. Diseases of the nervous system are reviewed by Dr. William G. Spiller.

ATLAS OF OPERATIVE GYNECOLOGY

By Barton Cooke Hirst, M.D., Professor of Obstetrics, University of Pennsylvania; 164 Plates, 46 Figures. J. B. Lippincott Company, 1919. Price \$7.00.

This magnificent atlas of operative gynecology illustrating the most approved methods of gynecologic operations is a clinic in itself and should appeal to every surgeon doing this kind of work. The first chapter presents a number of excellent illustrations of operating room furniture and arrangement of approved type, together with instruments. The method ordinarily used of preparation of patient is described in the text including colored plates showing the closure of the abdominal wound.

A rational perinorrhaphy is described in text and illustrated by plates which show the laceration and operation passing on from step to step, to the final

closure. From the incomplete laceration, we are carried by text and plate through the repair of a complete laceration.

There are important injuries of the anterior vaginal walls and supports of the bladder which demand careful consideration which are described and illustrated by numerous colored plates that carry the operator from one stage of the operation to another until the repair is complete. These plastic operations are difficult enough and often badly done. We feel sure that much bungling work could be saved and much comfort to the patient secured by a careful study of the text and plates. The same could be said in relation to repair of injuries of the cervix.

Vesicovaginal and urethral fistulae are considered in a similar manner, by text and illustrative plates. A series of plates illustrate the Pfannenstiel's incision for retroversion of the uterus, and operations for prolapse and inversion of the uterus, dilatation of the cervix by instrumental means and by anterior vaginal hysterotomy are considered, the latter fully illustrated.

An operation for enlarging the vaginal introitus in cases of vaginismus is described and illustrated. Operations for salpingectomy are presented by a series of fine illustrative plates, likewise operations for oophorectomy and hysterectomy. Cesarean section is also considered in a similar manner. The last section of the work is devoted to surgery of the mammary gland.

It is rare that we have presented so valuable a consideration of recognized operations in gynecology.

MODERN SURGERY

General and Operative, by J. Chalmers Da Costa, M.D., Samuel D. Gross, Professor of Surgery, Jefferson Medical College, Philadelphia, Pa., Eighth Edition, Revised, Enlarged and Reset. Octavo of 1697 Pages with 1177 Illustrations, Some of Them in Colors. W. B. Saunders Company, 1919. Cloth \$8.00.

Da Costa's Modern Surgery has been a favorite text-book on surgery for many years, first appearing in the early years of aseptic surgery. It has appealed to the general surgeon and the general practitioner who has done the surgical work that has come to his hand, because of the plain practical method set forth. As years have gone by operative undertakings have been extended and new technic and modified technic have been employed which has had the effect of bringing out entirely new works on surgery and the rewriting and revising of books on surgery long before the profession. We are living in a period where names alone, however honored, do not carry the weight of authority unless bearing the stamp of the latest ideas. This is in a way unfortunate for many things that are called the latest will not stand the test of more critical examination. The writer who presents the latest information with a true evalua-

tion, or at least a tentative evaluation will engage professional attention and become safe guides. Dr. Da Costa in his later editions has seen the importance of this attitude and has shown great skill in bringing out the latest thought properly guarded and it is this fact that has made him a popular leader. In this the eighth edition he has presented an up-to-date revision of civil surgical practice with the addition of the surgery of accidents as influenced and modified by the experiences of the war.

It is probably too early to determine the true value of much that has appeared in surgical literature and this is pointed out in the new volume. The student, the general surgeon and the general practitioner, who does surgery will find the same helpfulness he has found in the former editions of Professor Da Costa's work.

THE SURGICAL CLINICS OF CHICAGO

Volume 3, Number 4, August, 1919. Octavo of 287 Pages, 116 Illustrations. W. B. Saunders, Philadelphia and London. Published Bi-Monthly. Price Per Year, Paper \$10.00, Cloth \$14.00.

The first series of papers in this number consist of clinics at General Hospital No. 28, at Fort Sheridan, on different subjects: Dr. Dean Lewis, peripheral nerve injuries; C. C. Nesselrode, closure of cranial defects by Osteoperiosteal grafts; D. B. Phenister, reparative surgery of war wounds and some other condition of bone; E. W. Ryerson, on a number of conditions requiring operative treatment; L. J. Pollock, on peripheral nerve injury and R. S. Reich on foreign bodies in tissues. These war clinics cover quite a range of subjects and relate closely to many wounded soldiers who come to us now for consideration in the field of war risk insurance and will no doubt be helpful in estimating their disability. Following the war clinics come clinics from civil practice by Drs. A. D. Bowan, A. J. Ochsner, D. N. Eisen-drath and others from the hospital of Chicago. This number contains a rather unusual number of interesting cases.

A TEXT-BOOK UPON THE PATHOGENIC BACTERIA AND PROTOZOA

For Students of Medicine and Physicians. By Joseph McFarland, M.D., Professor of Pathology and Bacteriology in the University of Pennsylvania, Ninth Edition. Thoroughly Revised Octavo of 858 Pages with 330 Illustrations, a Number of Them in Colors. W. B. Saunders Company, 1919. Cloth \$4.75 Net.

The eighth edition of this valuable work was before us for review four years ago. We notice an increase of about fifty pages. The author informs us that much of the copy was prepared "in the field" and during the activities of a base hospital.

(Continued on Adv. Page xviii)

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BOOK REVIEWS

(Continued from Page 92)

In the ninth edition a new chapter has been added under the head of Infective Jaundice, Weil's Disease and Rat-bite Fever. The chapter on Wassermann has been extended, under the head of Infectious Diseases and the Specific Micro-Organisms, forty-eight pages have been added. These changes and additions have come from increased knowledge on some important matters during the three years of study and experimentation.

The eighty-one chapters on the various subjects in which laboratory studies have become an important fact in the study of disease brings to the student and the general practitioner the whole field of pathogenic bacteria and protozoa in their relation to disease.

NERVOUS AND MENTAL DISEASE

By Archibald Church, M.D., Professor of Nervous and Mental Diseases in Northwestern University Medical School, Chicago, and Frederick Peterson, M.D., Formerly Professor of Psychiatry, Columbia University, Ninth Edition, Revised Octavo Volume of 949 Pages, with 350 Illustrations. W. B. Saunders Company, 1919. Cloth \$7.00 Net.

The continual demand for this book has led to the publication of a ninth edition. There has been no material increase in the size of the book and no radical change in the text. The work is issued as a text-book for the use of students and the general practitioner and as such occupies the first place. During the past five years since the publication of the eighth edition, some new studies in diseases of the nervous have appeared but not sufficiently determined to warrant any material change in the text, although it is announced that the chapter on traumatic insanity has been rewritten including the subject of general paresis.

We have had occasion to review several editions of this work and have read all of them with profit, and as before, we now recommend it as a most valuable text-book.

MANUAL OF OBSTETRICS

By Edward P. Davis, A. M., M. D., F.A.-C.S. Professor of Obstetrics in Jefferson Medical College, Philadelphia. Published by W. B. Saunders & Co., Philadelphia and London, 1919. Second Edition, Revised.

This is, as stated, the second edition of a manual which has been of inestimable value to practitioners ever since its first appearance in print. It fulfills the object as given by its author, of giving a concise account of modern obstetrics, brought up to date by thorough revision of the original matter, with cer-

tain subjects treated in detail, where new developments have arisen since the publication of the first edition. Notable examples of these developments are along the lines of Differential Diagnosis, Pro-lapse of Pelvic Organs Complicating Labor, Analgesia and Anesthesia, Placental Bacteremia, and Abdominal Cesarean Section.

The book is divided into the usual headings, Anatomy and Physiology, Pregnancy, Labor, Puerperal Period, Obstetrical Operations or Obstetric Surgery, and the Fetus, with the appropriate sub-headings.

The final chapter deserves special mention, that on the Medico-Legal Aspects of Obstetric Practice, a subject seldom given by physicians, the study it merits, and the reader's attention is therefore called to it in particular.

While this manual is not intended to take the place, nor to prevent the use of, the larger text-books on Obstetrics, the reviewer feels free to state, from long acquaintance with the earlier edition, that for the immediate and urgent refreshing of memory, this smaller volume fills a very definite need and is of great service to the general practitioner. The print is clear and of good size, on good paper and the illustrations are adequate and in keeping with the text and the size of the volume. H. R. R.

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A well qualified physician with several years' experience would like to become associated with a surgeon or a busy general practitioner developing surgery where there is an opportunity to get experience in major surgery. Am not afraid of work and anxious to learn. Address M, care of this Journal.



WILLIAM L. ALLEN, M.D.
PRESIDENT
IOWA STATE MEDICAL SOCIETY
1919-1920

The Journal of the Iowa State Medical Society

VOL. X

DES MOINES, IOWA, APRIL 15, 1920

No. 4

Iowa State Medical Society

Sixty-Ninth Annual Session

Des Moines

May 12, 13 and 14, 1920

Program

OPENING EXERCISES

Wednesday, May 12

8:30 a. m.

Call to Order by the President—

WILLIAM L. ALLEN, M.D., Davenport

Invocation— Rt. Rev. HARRY S. LONGLEY, D.D., Des Moines

Address of Welcome for the City—

Address of Welcome for the Profession—

CHANNING G. SMITH, M.D., Granger,
President Polk County Medical Society

Response— CHANNING E. DAKIN, M.D., Mason City

SCIENTIFIC PROGRAM

Section on Medicine—

Chairman, WILLIAM E. SANDERS, M.D., Des Moines

Section on Surgery—

Chairman, CHARLES S. JAMES, M.D., Centerville

Official Reporter—

MISS ADELAIDE FOLSOM, Ripon, Wisconsin

Wednesday, May 12

9:00 a. m.

1. Roentgenology in Pulmonary Diseases—
HERBERT M. DECKER, M.D., Davenport, *twenty minutes*
2. Surgical Tuberculosis: Indications for Operative or Conservative Procedures—
ARTHUR STEINDLER, M.D., Iowa City, *twenty minutes*
Discussion opened by OLIVER J. FAY, M.D., Des Moines, *five minutes*
3. Lung Abscess—
EDWARD M. MEIS, M.D., Sioux City, *twenty minutes*
Discussion opened by JAMES T. PRIESTLEY, M.D., Des Moines, *five minutes*
4. Sequelae of Infectious Diseases of Childhood—
JAMES S. GAUMER, M.D., Fairfield, *twenty minutes*
Discussion opened by FRED MOORE, M.D., Des Moines, *five minutes*
5. Surgery of the Central Nervous System—
ALANSON M. POND, M.D., Dubuque, *twenty minutes*
Discussion opened by AMOS G. SHELLITO, M.D., Independence, *five minutes*

SECURE HOTEL RESERVATIONS AT ONCE.

6. Encephalitis Lethargica: With Report of Cases—

FRANK M. FULLER, M.D., Keokuk, *twenty minutes*

Discussion opened by GEORGE W. KOCH, M.D., Sioux City, *five minutes*

Wednesday, May 12

1:00 p. m.

7. Cerebral Type of Arteriosclerosis—

FRANCIS A. ELY, M.D., Des Moines, *twenty minutes*

Discussion opened by EDWARD M. WILLIAMS, M.D., Sioux City, *five minutes*

Symposium on Surgical Diagnosis

8. Case History—

ORRY C. MORRISON, M.D., Carroll, *twenty minutes*

Discussion opened by CHARLES S. KRAUSE, M.D., Cedar Rapids, *five minutes*

9. Physical Examination—

JOHN C. HANCOCK, M.D., Dubuque, *twenty minutes*

Discussion opened by JOHN C. ROCKAFELLOW, M.D., Des Moines, *five minutes*

10. X-Ray Examination—

THOMAS A. BURCHAM, M.D., Des Moines, *twenty minutes*

Discussion opened by ARTHUR W. ERSKINE, M.D., Cedar Rapids, *five minutes*

11. Laboratory Procedures—

FREDERICK H. LAMB, M.D., Davenport, *twenty minutes*

Discussion opened by GEORGE E. DECKER, M.D., Davenport, *five minutes*

12. Summary of Symposium: The Final Correlation—

CHARLES S. JAMES, M.D., Chairman of Section on Surgery, Centerville, *twenty minutes*

Adjournment

4:00 p. m.

Meeting—House of Delegates

Wednesday Evening, May 12

Social Entertainment

Thursday, May 13

9:00 a. m.

13. Demonstration of the Use of the Thomas Splint and Balkan Frame—

CHARLES E. RUTH, M.D., Des Moines, *twenty minutes*

Discussion opened by JOHN F. HERRICK, M.D., Ottumwa, *five minutes*

14. Oration in Surgery—

DAVID S. FAIRCHILD, JR., M.D., Clinton, *thirty minutes*

Symposium on Cardiovascular System

15. Physiology of the Heart Beat—

EDWARD D. ALLEN, M.D., Hampton, *twenty minutes*

IMPORTANT—See Pages 122 and 131

16. The Usual Clinical Symptomatology of Heart Disease—
MEREDITH MALLORY, M.D., Des Moines, *twenty minutes*
17. Graphic Methods in Cardiodiagnosis—
AUSTIN C. DAVIS, M.D., Iowa City, *twenty minutes*
18. Therapy of Cardiovascular Disease—
VERNON L. TREYNOR, M.D., Council Bluffs, *twenty minutes*
Discussion opened by CAMPBELL P. HOWARD, M.D., Iowa City, *five minutes*

Thursday, May 13
1:30 p. m.

19. Address—Guest of Ophthalmology, Otolaryngology and Rhino-Laryngology Section—
20. Address of the Chairman of the Section on Medicine: The Making of a Diagnosis—
WILLIAM E. SANDERS, M.D., Des Moines, *thirty minutes*
21. Address on Medicine: A Plain, Practical Talk Based upon 'Thirty-five Years' Experience with Functional and Organic Disorders of the Heart—
ROBERT H. BABCOCK, M.D., Chicago
22. The Relationship of Fractures to Malpractice Suits—
MR. CHARLES M. DUTCHER, Iowa City
Discussion opened by DAVID S. FAIRCHILD, SR., M.D., Clinton
23. Roentgenology in the Diagnosis and Management of Fractures—
BUNDY ALLEN, M.D., Iowa City, *twenty minutes*
Discussion opened by HERBERT M. DECKER, M.D., Davenport, *five minutes*
24. Surgical Uses of Radium—
ELMER E. BAMFORD, M.D., Centerville, *twenty minutes*
Discussion opened by JAY F. AUNER, M.D., Des Moines, *five minutes*

Thursday, May 13
8:00 p. m.

25. President's Address—
WILLIAM L. ALLEN, M.D., Davenport
26. Presentation of Gavels to Ex-Presidents—

Friday, May 14
9:00 a. m.

27. Surgery of the Chest: Observations on the Wounded in France—
DONALD MACRAE, JR., M.D., Council Bluffs, *twenty minutes*
Discussion opened by JAMES F. CLARKE, M.D., Fairfield, *five minutes*
28. What the War has Taught us in the Treatment of Fractures—
FRANCIS R. HOLBROOK, Des Moines, *twenty minutes*
Discussion opened by EARL D. MCCLEAN, M.D., Des Moines, *five minutes*
29. Address on Surgery: The Thyroid and its Diseases—
CHARLES H. MAYO, M.D., Rochester, Minnesota
30. The Mentally Defective Problem—
CLARENCE E. VAN EPFS, M.D., Iowa City, *twenty minutes*
Discussion opened by MAX E. WITTE, M.D., Clarinda, *five minutes*
31. Oration in Medicine: Organization or Association of Physicians as Against Individualism or Socialization—
CHARLES B. TAYLOR, M.D., Ottumwa, *thirty minutes*

32. Life Insurance Examiner—
MATTHEW L. TURNER, M.D., Des Moines, *twenty minutes*
Discussion opened by GEORGE E. CRAWFORD, M.D., Cedar Rapids, *five minutes*

OPHTHALMOLOGY, OTOTOLOGY AND RHINO-LARYNGOLOGY

Chairman
Frank W. Dean, M.D., Council Bluffs

Thursday, May 13
9:00 a. m.

1. The Roentgen Ray in the Diagnosis of Sinus Disease—
SUMNER B. CHASE, M.D., Ft. Dodge
Discussion opened by ALBERT J. JOYNT, M.D., Waterloo
2. Relationship of the Eye to Focal Infection—
SYDNER D. MAIDEN, M.D., Council Bluffs
Discussion opened by LEROY R. TRIPP, M.D., Sioux City
3. Some of the Aural Complications of Mumps—
GEORGE C. ALBRIGHT, M.D., Iowa City
Discussion opened by MARY K. HEARD, M.D., Iowa City
4. Acute Infection of the Nasal Sinus: Reference to Treatment—
THOMAS ROY GITTINS, M.D., Sioux City
Discussion opened by FREDERICK L. WAHRER, M.D., Marshalltown
5. How Are We Treating the Eustachian Tube—
FREDERICK W. SALLANDER, M.D., Sioux City
Discussion opened by ELMER P. WEIH, M.D., Clinton
6. Treatment of the Eustachian Tubes and Middle Ear: Report of Case—
HARRY M. IVINS, M.D., Cedar Rapids
Discussion opened by WAYNE J. FOSTER, M.D., Cedar Rapids
7. Melano-sarcoma of the Eye-Ball, with Case Reports—
WILLIAM H. JOHNSTON, M.D., Muscatine
Discussion opened by GEORGE F. HARKNESS, M.D., Davenport
8. Traumatic Pulsation Exophthalmos, with Report of Case—
GEORGE A. MAY, M.D., Des Moines
Discussion opened by RALPH H. PARKER, M.D., Des Moines

This Section will convene with the General Session Thursday afternoon at 1:30 to hear the address of their guest.

HOUSE OF DELEGATES

Wednesday, May 12
4:00 p. m.

Roll Call
Report of Secretary
Report of Treasurer
Report of Council
Report of Trustees
Report of Standing Committees
Memorials and Communications
New Business
Election of Committee on Nominations

Thursday, May 13
8:00 a. m.

Roll Call
Reading of Minutes
Report of Committees
Unfinished Business
New Business

Friday, May 14
8:00 a. m.

Roll Call
Reading of Minutes
Report of Committee on Nominations
Election
Report of Committees
Unfinished Business
New Business

MEETING PLACES

Headquarters—Hotel Fort Des Moines, Tenth and Walnut Streets
General Meetings—Hotel Fort Des Moines, Ball Room
House of Delegates—Hotel Fort Des Moines, Third Floor
Eye and Ear Section—Hotel Fort Des Moines, Third Floor
Registration and Exhibits—Hotel Fort Des Moines, Mezzanine Floor
Headquarters for Ladies—Hotel Fort Des Moines

Rules for Papers

No paper before the Society shall occupy more than twenty minutes in its delivery; and no member shall speak longer than five minutes nor more than once on the same subject. This does not apply to the addresses and orations.
All papers read before the Society shall be its property. Each paper shall be deposited with the Secretary when read, and if this is not done, it shall not be published.

On arising to discuss a paper, the speaker will please announce his name plainly.
Please remember to REGISTER.

ENTERTAINMENT
Wednesday, May 12

Auto Ride for the Visiting Ladies (starting from Hotel Fort Des Moines), One O'clock
Reception, Savery III, Three to Five O'clock.
Banquet, Hotel Fort Des Moines, Six-thirty; physicians, their wives and guests

Thursday, May 13

Theatre Party at the Orpheum, Two O'clock, courtesy of the Chamber of Commerce

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1919-1920

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WILLIAM L. ALLEN, M.D.....Davenport

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DONALD MACRAE, JR., M.D.....Council Bluffs

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DAVID S. FAIRCHILD, SR., M.D.....Clinton

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Third District—W. A. Rohlf, M.D., Waverly.....1921
Fourth District—Paul E. Gardner, Ch'm, M.D., New Hampton 1924
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Tenth District—W. W. Beam, M.D., Rolfe.....1921
Eleventh District—G. C. Moorehead, M.D., Sec'y, Ida Grove 1920

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J. W. Cokenower, M.D., Des Moines.....1922
W. B. Small, M.D., Waterloo.....1921
T. E. Powers, M.D., Clarinda.....1920

DELEGATES TO A. M. A.

W. B. Small, M.D., Waterloo.....1921
J. C. Rockafellow, M.D., Des Moines.....1920
M. N. Voldeng, M.D., Woodward.....1920

ALTERNATE DELEGATES

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B. L. Eiker, M.D., Leon.....1920
J. C. Langan, M.D., Clinton.....1920

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H. B. Jennings, M.D., Council Bluffs.....1922
Lewis Schooler, M.D., Des Moines.....1920

SCIENTIFIC WORK

Wm. L. Allen, M.D.....Davenport
Tom B. Throckmorton, M.D.....Des Moines
Thos. F. Duhigg, M.D.....Des Moines

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J. W. Cokenower, M.D.....Des Moines
B. L. Eiker, M.D.....Leon
J. W. Harrison, M.D.....Guthrie Center
William L. Allen, M.D.....Davenport
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HEALTH AND PUBLIC INSTRUCTION

Paul E. Gardner, M.D., New Hampton.....1921
Jeannette F. Throckmorton, M.D., Chariton.....1920
Henry Albert, Iowa City.....1922

CONSTITUTION AND BY-LAWS

V. L. Treynor, M.D.....Council Bluffs
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Alva P. Stoner, M.D.....Des Moines
Edwin B. Winnett, M.D.....Des Moines

State Society Iowa Medical Women

Twenty-Second Annual Session Des Moines

Tuesday, May 11
9:00-10:00 a. m.

Gynecologic Clinic at Health Center

10:00 a. m.

Chamber of Commerce—Savery III
Business Session

10:30 a. m.

Symposium: The Value of the Laboratory—
Leader, JESSIE B. HUDSON, M.D., Carroll

Leucocytosis— JULIA F. HILL, M.D., Des Moines

Chemical Examination of the Blood—
MRS. ANNA GLOMSET, M.D., (by invitation) Des Moines

Genito-Urinary Diseases—
JESSIE B. HUDSON, M.D., Carroll

11:30 a. m.

President's Address: The Work of Women Physi-
cians During the War—
NELLE S. NOBLE, M.D., Des Moines

12:00 m.

Luncheon—Harris-Emery's Tea Room
Guests of Chamber of Commerce

2:00 p. m.

Skiagrams of the Chest: Demonstration—
HELEN MAILANDER, Technician (by invitation) Des Moines

Symposium—Therapeutics

Leader, EPPIE MCCREA, M.D., Eddyville

Goitre— ROSE E. LOWDER, M.D., Maquoketa

Cervicitis— LEONE M. SCRUBY, M.D., Des Moines

High Blood-Pressure— EPPIE MCCREA, M.D., Eddyville

Physical Adjuncts to Health—

ALICE M. HATCH, M.D., Des Moines

Medical Treatment of Labor—

GEORGIA STEWART, M.D., Des Moines

4:00 p. m.

Treatment of Tumors of the Uterus—

LEDA STACY, M.D. (by invitation) Rochester, Minnesota

6:30 p. m.

Dinner—Younkers' Tea Room

MARY K. HEARD, M.D., Iowa City, Presiding

Address: My Year in France with the Red Cross—
LILLIE A. ARNETT, M.D., Waterloo

Election of Officers

OFFICERS 1919-1920

PRESIDENT

NELLE S. NOBLE, M.D. Des Moines

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LENA A. BEACH, M.D. Rockwell City

SECRETARY-TREASURER

EPPIE MCCREA, M.D. Eddyville

CHAIRMAN COMMITTEE ON ARRANGEMENT

SOPHIE H. SCOTT, M.D. Des Moines

Important Announcement

All women physicians who have not already reserved hotel accommodations, will please do so at once by writing Dr. Sophie H. Scott, Chairman Arrangement Committee, Des Moines. The hotels will be taxed to their utmost capacity in May.

MEETING IOWA TRUDEAU SOCIETY

The Iowa Trudeau Society (Medical Section of the Iowa Tuberculosis Association), will present clinics in tuberculosis, conducted by Dr. Gerald B. Webb of Colorado Springs and Dr. R. B. Hayes of Chicago, Friday afternoon, May 14. All members of the State Society are invited.

THE DES MOINES SESSION

The April issue of the JOURNAL contains the official program of the Sixty-Ninth Annual Session of the Iowa State Medical Society which will be held in Des Moines, May 12, 13 and 14. The Scientific Committee, with the help of the Section Chairmen, has endeavored to make the program of as great scientific interest as possible, and at the same time to keep in mind the fact that every practitioner of medicine needs primarily, and is the most interested in, the practical side of the art which he pursues from day to day.

It has been well said by one of Æsculapius's followers that "Medicine consists of an Art and a Science. Happy is he who fortunately possesses both." It was to this end that the Scientific Program was planned, and as to how well the Scientific Committee builded remains to be seen. It is hoped that its efforts will not have been in vain.

The Arrangement Committee has selected the Hotel Fort Des Moines as the headquarters for the physicians and their guests, the meeting place for both the General Session, the House of Delegates and the Special Meeting of the Eye, Ear, Nose and Throat Section. The success of the Fort Dodge Session held two years ago, was largely attributed to having everything connected with the session under one roof. It was with a similar view in mind that the meeting place for this year's session was planned a year in advance.

For many years it has been customary for exhibitors from reputable firms to have the opportunity of presenting, to the Iowa profession, such goods as appealed to them to be worthy of consideration. The exhibition of medical and surgical supplies is of great interest and value and, for the benefit of the attending physicians, a special place in the Fort Des Moines Hotel has been reserved for exhibitors where the display of goods will be held.

The social events connected with the session will be held on the first and second days. A reception for the visiting ladies will be held at Hotel Savery III from three to five o'clock, on Wednesday afternoon. In the evening the annual banquet will be given to the physicians, their wives and guests at Hotel Fort Des Moines, six-thirty o'clock. Through the courtesy of the Chamber of Commerce, there will be a theatre party for the ladies at the Orpheum Theatre, Thursday afternoon, two o'clock.

Too much attention cannot be called at this time to the fact that it is extremely important for the physicians who expect to attend the Des Moines Session to secure their hotel reservations early. It is imperative that this warning be heeded inasmuch as every available room in the local hostelry will be in demand not only at the time of the State Society meeting but during the entire month of May. The congestion of hotel accommodations can best be understood, perhaps, when one realizes that over ten thousand extraneous persons will be housed in Des Moines as a result of the General Methodist Conference held in this city during May. The support of the various hotel managements has been promised to care for visiting physicians during the coming session, but it is very essential that every one help in the matter, and to this end—be on the safe side; secure your hotel reservations early.

Tom B. Throckmorton, Sec'y.

THE COMMERCIAL EXHIBIT

The Sixty-Ninth Annual Session of the Iowa State Medical Society affords the most desirable opportunity to exhibitors ever obtainable. The headquarters, registration, general sessions and exhibit space are on one floor—the Mezzanine floor of the new Hotel Fort Des Moines. This spacious hotel was constructed with a view to every convention demand, and with its well appointed assembly hall and display rooms, nothing is lacking in service to make any meeting a success from every standpoint.

The annual session is the only occasion when firms, whose products are for the physician, can meet the profession as a whole, so to speak, and come in personal contact with a display of articles.

There is still some available space to offer, and our advertisers are invited to avail themselves of this splendid opportunity to meet the profession in Iowa.

The following firms have contracted for space at the forthcoming meeting of the Iowa State Medical Society at the time of going to press.

H. G. Fischer Company, Chicago, Illinois, Booth No. 17. Demonstrating x-ray and electric apparatus and electro-therapeutic apparatus.

Gaynor-Bagstad Company, Sioux City, Booth No. 16. Will exhibit a full line of physicians' supplies, surgical instruments, etc.

Geneva Optical Company, Des Moines, Iowa, Booth No. 10. Will display a full line of optical goods and specialties.

Horlick's Malted Milk Co., Racine, Wisconsin,

Booth No. 8. With a line of Horlick's Milk products.

Lewis X-ray Company, Des Moines, Iowa, Booth No. 11. Will exhibit a full line of x-ray apparatus. Victor Electric Corporation.

Magnusen X-ray Company, Omaha, Nebraska and Des Moines, Iowa, Booth No. 5. With a line of x-ray apparatus. Intensifying screens, etc.

Marshalltown Laboratories, Marshalltown, Iowa, Booth No. 6. Will exhibit their products and give special demonstration in the use of cellosilk as applied for wound dressings.

Merry Optical Company, Des Moines, Iowa, Booth No. 7. In addition to a full line of optical goods, a line of surgical instruments for eye, ear, nose and throat will be on display.

Radium Chemical Company, Pittsburgh, Pennsylvania, Booth No. 15. Demonstration will be given in the use of the application of radium and the apparatus for administering.

W. B. Saunders, Philadelphia, Pennsylvania, medical book publishers, Booth No. 12. With a complete line of Saunders publications.

Standard Chemical Company, Des Moines, Iowa, Booth 1 and 2. Exhibit a full line of surgical instruments, supplies and chemicals.

Thompson-Plaster Company, Leesburg, Virginia, Booth No. 4. Will show their line of x-ray apparatus and supplies.

E. R. Squibb & Sons, New York, Booth No. 18. Will display vaccines, serums, antitoxins, etc.

Chas. H. Phillips Chemical Co., New York, Booth No. 16. Exhibit its chief product—milk of magnesia.

THE ADVERTISING

In this issue, we are pleased to bring to your attention the announcements of some of the leading Des Moines firms, well knowing that, upon attendance at the coming session in May, the members as well as their wives, will take advantage of the purchasing opportunity. Whether your purchases range from office equipment, household furnishings or personal apparel to watches and diamonds, or whether you dine or lunch at either of the beautiful and attractive Tea Rooms or Cafeterias where the service is complete in every detail, the Journal bespeaks for you courteous treatment and everlasting satisfaction.

In reading this special Program Number of the Journal, please do not overlook the advertising pages—therein lies much of interest. From month to month new advertisers appear who, together with our advertisers of long standing, are worthy of your patronage; for, as has been stated many times heretofore, none but products of the highest grade of perfectibility are to be advertised in this, your JOURNAL. The advertisements of a number of Des Moines firms also appear in this issue. The advertisers contribute their share towards making this Journal what it is, so please remember them when you are ordering, and do not forget to say "I saw your advertisement in the Journal of the Iowa State Medical Society." It will be appreciated.

DES MOINES AWAITS YOUR COMING

REST IN TUBERCULOSIS*

H. V. SCARBOROUGH, M.D., Oakdale

So many agencies enter into the proper and complete treatment of pulmonary tuberculosis that it would be improper to select out and discuss exclusively one principle of treatment if it were not for the fact that this one agency under consideration in this case, viz., "rest," is by far the most important one among all the agencies in use for this disease, so nearly all-important that it by far overshadows the importance of all other agencies taken collectively. Moreover, from its nature, not being a drug or a surgical procedure its value is naturally and easily underrated by any one not closely studying the situation, and it is underestimated grossly in a surprisingly large number of instances.

To determine roughly how much this most important therapeutic measure is today ignored and misapplied, 100 consecutive cases of known tuberculosis were carefully interrogated as to just what advice was given by the diagnostician who first definitely decided that pulmonary tuberculosis was present in their case. All cases were disregarded where there was vagueness of recollection as to advice given, or where there was any other indication which tended to detract from the reliability of the evidence given as to just what measures were intended to be carried out by the physician for the purpose of promoting a recovery from the tuberculosis.

The following were the results obtained:

Patients given good advice as to rest.....	54
Patients given poor advice as to rest.....	32
Patients given no advice as to rest.....	14

Total.....	100
Patients advised to exercise.....	41
Patients not advised to exercise.....	59

Total.....	100
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Patients advised to take breathing exercises, 18.

Patients not advised to take breathing exercises, 82.

Practically no patients were advised against breathing exercises and many took breathing exercises because of outside (lay) advice.

65% of patients properly advised as to food.

54% of patients properly advised as to rest..

In this paper we will consider more especially the matter of rest in the sense of immobilization. The ideal rest for our purpose is undoubtedly that of physiological sleep, which not only se-

cures the largest degree possible of relaxation and suspension of all activities not actually essential, but also eliminates any possible effect from the mental side of the equation. It would seem that rest for patients with pulmonary tuberculosis is given various meanings, according to the ideas of the practitioner taking care of the patient. In this sense I mean the actively tuberculous patient. With some it means a change from heavy work to moderate or light work, and with others no attention is given after having advised the patient to quit work. He may be spending his time down town, or be at home doing light duties around the house. Sometimes patients are directed to remain confined to the house but no further restrictions are applied so that they spend their time sitting around reading, knitting, mending or otherwise exerting themselves to a degree. Other patients are advised that they must rest in reclining chairs or on a sofa. Only a few are instructed that rest means going to bed and spending the time there regularly when not at meals or being required to be up by something absolutely necessary. Our own idea about this is that the actively tuberculous patient, to properly rest should be in bed on his back, perfectly relaxed, and not reading, writing or pursuing any other such diversion. When his state of improvement is such that he can be allowed more latitude this should be done by regular prescription, preferably written, but for some considerable time we feel that if not needed for genuinely necessary duties or for prescribed exercise, time is wasted if the patient does not stay in bed.

When exercise is begun, if the patient does not rest at intervals during the day so that the tissues can be repaired and renewed between times, then renewed activity is sure to occur, and the patient fails because the amount of repair that can be accomplished during sleep does not prove to be sufficient to keep the system in good condition. For this reason long hours without any relaxation, even if no work is being done, are frequently as severe and dangerous in effect to a person below par physically from this disease as is relatively severe exertion for short periods with some time given in between for rest. The success of treatment of a tuberculous case lies in the resting and not in exercising.

As to the rationale of rest, it is first, to correct the wear and tear on tissues already compromised by the toxins of the tubercle bacillus. Exercise quickly washes into the blood stream the toxins which by their effects on the tissues further tend to destroy the ordinary and necessary functions of the body. The temperature produced by oxi-

*Presented at the Sixty-Eighth Annual Session, Iowa State Medical Society, May 7, 8, 9, 1919, Des Moines, Iowa.

dation has a bad effect on various functions, and inflammation of the tissues has a bad effect mechanically as well. Waste products increase and are eliminated with difficulty. The increasing toxins impair the carrying power of the blood and produce anemia. The breaking down of tissue is accelerated.

The need of rest in tuberculosis for special cases not pulmonary is nicely illustrated in tuberculosis of the larynx where the patient is instructed to be very careful to use his pencil and pad of paper, whispering only where absolutely necessary, and raising his voice not at all. Tuberculosis of the arm and limb, in various situations, is treated by the use of splints and casts. Where not contraindicated artificial pneumothorax is done, with actual compression of the injured lung by the injection of air into the pleural sac; and in tuberculosis of the spine the use of the bone graft is a good example. In connection with this logical practice of the direct use of rest locally, is to be noted that 18 per cent. of the patients interrogated who at that time were in more or less active stages of tuberculosis were advised to take breathing exercises to facilitate the healing of the lesion present and practically none were cautioned not to take them.

Where pulmonary tissues are in need of rest and immunity, exercise will stimulate the further increase of inflammation through aggravating the infection which is present. Exercise, therefore, is not needed but is, in contradistinction, directly dangerous, and the tendency to advise deep breathing exercises constitutes a very dangerous mistake. Good expansion, unfortunately, does not mean good lungs, as experience in examining the tuberculous teaches that a large number of patients have expansion enough to pass any insurance examination and some of them have excessive expansion, even without practice. In fact, advice for deep breathing given out generally to the supposedly healthy public is usually pernicious since about the only ones who take notice and follow such advice are those whose attention has been called to their lungs by reason of their having some trouble there and such people should not have exercise in this form under any circumstances. A climate of high altitude with its rarefied atmosphere causes rapid breathing and is detrimental to a patient with active tuberculosis.

Indications for rest constitute a most important feature of treatment and it is exceedingly important as well as a delicate matter to adjust because the patient frequently feels perfectly well while at the time failing gradually.

It is now an accepted rule that the way to treat tuberculous patients after subsidence of clinical symptoms is to gradually increase the amount of exercise in time and variety as fast as safe until the patient can stand such exercise and work as he will be subject to, when he is at home or out from under the doctor's supervision. In looking for indications as to whether the exercise in any particular case is being overdone, we find a complicated and difficult problem.

The most important ones to be looked for as indicating increased activity from over-exercising and the necessity for more care or reduction of exercise are fatigue, loss of appetite, loss of weight, increase of temperature and accelerated pulse.

In the case of *fatigue* one must know his patient well, for while in general it is found that a patient is usually more apt than otherwise to ignore fatigue that is significant, it is a fact that occasionally one comes to the conclusion that the patient is over-estimating his fatigue. In an institution, especially, where patients are anxious to be improving and to go back home as soon as possible, and where they know that their progress is being more or less based upon the exercise they can tolerate, we find that very frequently the symptoms of toxemia indicating over-exercise are underestimated or even neglected, the patient simply failing to report what he sees and feels. Moreover, not only must one watch for fatigue at times of exercise, for instance in the morning, but also watch carefully for fatigue in the late afternoon, after the patient has been in bed at rest regularly for several hours between; a very frequent time when fatigue is shown and over-exertion is indicated, is the morning when, on first waking, the patient is yet tired and does not feel rested as he should.

As to *failing appetite*, this is a very important indication, and when consistently present should be given careful consideration, but care must be taken not to confuse poor appetite due to increased toxemia from over-exertion with that caused by lack of elimination or other temporary or less important extraneous cause.

Loss of weight follows closely on poor appetite for obvious reasons, but weight is also not always a safe thing to depend on. Ordinarily an increase of weight means improvement, but not uncommonly do we find patients who can gain regularly yet where the healing processes are not advanced at all or even sometimes where they retrograde. The weight of a patient with a favorable outlook, on proper rest, ordinarily goes up and up until it is above normal and very fre-

quently above any maximum that the patient may ever have had. Then at the beginning of exercise the weight will go back gradually to below the maximum but should not go below the normal. An ideal situation is to have the weight remain substantially above the former normal when the patient gets well back to his former full working capacity and time.

Once a week is often enough to take the patient's weight and a slight loss one week counterbalanced by a larger gain the next, need not be noticed. A gradual and more or less regular gain up to and above normal is desired.

Increase of temperature, while a relative thing, deserves more consideration than is usually given it. As with other indications of over-exertion mentioned, this one is not infallible. Chronic cases will frequently reach the stage where their temperature is rarely above normal, while at the same time the patient may be retrograding. Also a patient is occasionally found, especially in cases having also slight glandular trouble, where the temperature will remain slightly above normal sometimes for a long time after all other indications for keeping the patient at rest have disappeared and he is gaining satisfactorily. However, any patient having a consistently regular temperature above normal, even though slight, should be regarded with suspicion, and even if no other indication whatever is present to corroborate, no exercise should be given, even if the temperature continues to be present for an unusual time. The patient will not be damaged if he is unduly restricted when temperature is present. On the other hand serious consequences frequently happen from disregarding a slight temperature. Also in the case of a slight but persistent temperature one must take into consideration the possibility of its being caused by infected teeth, tonsils, sinuses or other foci of suppuration. A rise of temperature of a degree or thereabouts immediately after exercising is common when the acute stage is recent, and need not excite alarm, but such raise must drop in a half or three-quarters of an hour, if the patient rests. If too great a reaction to the exercise is shown and if it is repeated, a decrease or discontinuance of exercise is indicated. An accelerated pulse dropping in a half hour is likewise not necessarily alarming.

Accelerated pulse appears the earliest of the symptoms of an incipient tuberculosis, frequently showing when nothing else can be found. Exceptional cases where the pulse is but slightly affected are not very common, but are found. The pulse may be accelerated by a number of other

things besides tuberculosis. When in doubt as to cause of accelerated pulse a safe rule always is to suspect tuberculosis unless it can be proved otherwise.

An increase of cough or if it has subsided, a *renewal* of the cough, is evidence of increased activity, and whether the activity be due to an excessive amount of exercise or whether to some intercurrent thing such as a non-tuberculous respiratory infection, the case should receive attention and incidently more rest. Much the same can be said also if the *sputum increases*. Both of these are likely to be late in appearing and to indicate a substantial increase of activity.

Blood spitting commonly indicates increase in activity even though slight in amount, and its appearance is a sign to at once discontinue exercise. The same is to be said of *pleural pain*. The question of how long thereafter to keep the patient at absolute rest and how rapidly to start exercise depends commonly on the severity of the attack of blood spitting or pleurisy.

An increase of *dyspnea* calls for decrease of exercise. Dyspnea is more likely to be seen in the chronic far advanced case, in which class of cases the exercise must be adapted to the patient with care. Such cases usually have less chance of improvement and are not very suitable to exercise, especially any exercise involving the use of muscles of the arms or chest. Acute cases showing dyspnea on exercise are usually cases not suitable for exercise.

There are many other indications for decreasing or discontinuing exercise, and the judgment of the doctor must be depended upon to watch for more favorable time for it. Extra-pulmonary tuberculosis such as tuberculosis of the bowel, peritoneum or others with extensive tuberculous lesions, require careful use of rest as well as does pulmonary tuberculosis. Acute attacks of non-tuberculous disease in a tuberculous patient likewise call for cessation of exercise.

The technique of beginning exercise and increasing safely requires much careful judgment, especially in the cases that to start with, have been rather advanced or acute. Not nearly enough care and consideration is usually given to it. Furthermore most cases are increased on exercise too fast. The average case, that is, the moderately advanced case, which has had some acute trouble for several weeks should have the temperature return to normal and remain so at all times during the twenty-four hours for a week or more, depending on the severity and length of the acute stage, before he may be considered ready to start being up and around for exercise.

In such a case where the strength is fair, it is wise to begin first by having the patient sit up in bed ten or fifteen minutes the first day, increasing it from day to day to the extent of ten or fifteen minutes per day, having this done at morning, noon and night, until the patient has reached the point where he is sitting up an hour at a time at the three periods, or possibly two hours in the evening. If there seems to be no fatigue or other symptoms, such as those above mentioned, indicating that this is too much for the patient, then the matter of exercise can be considered. It seems to be the practice, to increase the time of being up until the patient is up the greater part of the day. This practice we think illogical and wrong. We expect the patient to be in bed a considerable share of his time; in fact, until he proves himself able to stand being up; to act otherwise is setting a bad precedent to say nothing of the lack of rest time which is, after all, the most important thing about the treatment. The usual uncomplicated case of tuberculosis of the stage mentioned probably is best adapted to walking exercise at first, and, depending on the weakening effects of the acute attack and the degree of involvement of the lungs, the exercise should be started at a low amount and increased more or less rapidly. At the start an ordinary case will usually stand five minutes of slow walking on level ground nicely, and it is our general custom to increase by five minutes every other day until twenty minutes are reached, watching the patient carefully in the meantime to see how he stands this form of exercise. After several days observation here, if found to be without bad result, it is usually well to increase five minutes in time every day or every other day as seems best until an hour's time has been reached. It is usually our custom at this stage to start exercise likewise in the afternoon, the morning exercise being begun half an hour after breakfast, the evening exercise being taken about 4:30 and not later than half an hour before the evening meal, the half hour intervening between the exercise and the meal being utilized for resting. We find that the average patient that has had some recent acute illness does not do so well if walking exercises are continued for more than three-fourths of an hour or an hour, and it is our custom therefore to vary the kind of exercise where it increases beyond this amount. The many different kinds of helpful things that patients can do, should be classified carefully into three or more grades, according to the kind of actual physical exertion required, and after the patient has proved himself able to stand the grade

of exercise selected for him for a time, without any of the contra-indications, then he can be graduated into the next highest grade, preferably cutting the exercise time somewhat at the time of making the change. The heavier grade of exercise of course may be impossible to some patients on account of the profound effect of the toxins of the tuberculosis or the large amount of involvement. In fact, a considerable percentage of patients necessarily must for months refrain from any heavy work. When the amount of time allowed for exercise in the morning has increased so that it takes up all the time from half an hour after the morning meal up to within half an hour of the noon meal, then the morning should be considered full enough and the increase of exercise be taken in the afternoon. The patient should for a considerable time observe the half hour rest just before the noon meal. The increase in the afternoon it is probably best to take the latter part of the afternoon but when the afternoon exercise time has increased until it takes up all the time from an hour after the noon meal up to half an hour before supper then the exercise time can be well considered full and the patient kept at this stage for some months. Where possible patients who have had a specially severe attack should retain this hour of rest after the noon day meal for some time and make their amount of work conform to it. Where not possible the patient should arrange his hours of work as nearly to this plan as he can, taking rest immediately after work at night. It is very important and a great safeguard that he should for a time have rest at the middle of the day, even at the expense of accomplishing less work and getting less pay for it. It goes without saying that the patient should not undertake for a long time any outside work not absolutely necessary to gain his livelihood, as for instance, after his evening meal, but for two or three years should make it a practice to sit or lie down the rest of the evening. A large percentage of cases of relapses of patients who leave the institution with very favorable prospects can be traced directly to lack of rest or rather to extra work in the evening or at night. It is not always so much what kind of work he does after his recovery as it is how much rest he takes and how he spends his time outside of his working hours.

The moderately involved and moderately advanced case is the stage most usually seen by the practitioner. Cases earlier than this or with less involvement or at least less clinical evidence, may tolerate a larger daily increase of exercise and therefore a quicker resumption of former work,

but we find in practice that rarely can a patient be safely placed on his feet for ordinary light work in less than four or five months after the acute stage subsides, while the average early case takes six to eight. When patients farther advanced that the moderate stage are under consideration all grades of results may be expected. After a high grade of activity for three, four or five months, it is problematical just how far and how soon the patient can be gotten on his feet. Sometimes several weeks must elapse after the patient's temperature is normal before the other clinical symptoms disappear and exercise can be started. Frequently the patient must take several weeks before he can sit up long enough to make walking exercise advisable. Frequently walking exercise must go so slowly that the patient progresses by increases of minutes rather than by increases of five minute intervals. With many patients the place is soon reached beyond which the patient can not seem to advance without recrudescence of the temperature or other signs of the disease. This is, of course, an unfavorable outlook but even in this class the passage of months often finally brings the resistance up until the patient can get back to a fair degree of light work. In far advanced cases only 10 or 15 per cent. ever get back to any reasonable degree of working capacity.

As stated at the outset, the matter of rest in the treatment of tuberculosis is the most important single feature we have. Exercise being the opposite of rest is not to be considered a part of the treatment but rather that the patient must be adjusted to exercise and work before he is ready to be dismissed from careful observation. Exercise regulation is not often given the careful consideration, and especially the *time* it requires, and until a graduated exercise program is more carefully followed and insisted upon we must not wonder at the numerous relapses we have later among our tuberculous patients.

Discussion

Dr. J. W. Kime, Fort Dodge—The management of the consumptive patient is not a fixed quantity. You will remember that a few years ago we were bearing down particularly hard on the importance of fresh air—fresh air at any cost. A little later we were bearing down equally hard on the importance of food—food all the time, stuffing these patients almost day and night, feeding them at least six times a day, giving large quantities of milk and eggs. These things are important—fresh air is important, feeding is important, and we should not minimize their importance. But we are now feeding our patients vastly different than we were a few years ago.

We are feeding them on ordinary food three times a day, and we are finding that they are doing much better. We have finally come to one point in the treatment of tuberculosis from which we are not going to get away, and that is the value of rest in the treatment of pulmonary tuberculosis. It was the surgeon who, years and years ago, gave us the cue. The surgeon fixed his tuberculous joint in a plaster cast and held it there for months, for years if necessary, and his tuberculous lesion healed. Tuberculosis is tuberculosis no matter where it is found, and the successful treatment of this disease in one part of the body is its successful treatment no matter where found. And rest is a factor of the utmost importance, and of leading importance in the treatment of this disease. The nearer we can come to treating these cases as the surgeon treats them, the greater will our success be. That is, the more nearly we may place the thorax in a plaster splint, the better our results are going to be. And how may we do this? By holding the thorax as nearly at rest as is possible, the lungs at rest, by keeping our patients at rest. We do not mean cessation from work, only we do not mean merely staying about the house; we mean keeping these patients recumbent in bed. Hold them as nearly in splints as we may. And for the same reason, in suitable cases is it important that we put the lung in a splint by the use, the careful and judicious use, of artificial pneumothorax. I want to impress upon the members here the importance of the careful and judicious use of artificial pneumothorax, for it is a dangerous measure to employ, and all of us who have used it have seen at times alarming conditions arise when we thought we were using it properly. Rest must begin when tuberculosis begins. When active tuberculosis begins, and our cases are always active or they would not be with us, we must immediately institute complete rest. There are thousands of cases of latent tuberculosis in which we are not interested at all, but when the patient is sick with tuberculosis his lesion is active, his temperature is above normal, his heart is running at too rapid a rate, and the other well-known symptoms of the disease are present. And when the temperature is above normal, if it is not below 99, the time has come when you must apply rest—the important, the essential, the all-necessary thing in the management of these cases—if you are going to treat them successfully. We see over and over again patients in whom we are inclined to believe that arrest of the process is beginning, if it has not already taken place, and when a little injudiciousness in regard to rest overturns the whole thing, relapse occurs, and we see these patients go on down to death. Are we accomplishing anything in our campaign against tuberculosis? In affirming that we have, I want to cite a single instance taking place within the last week that has driven this home to me more forcibly than has anything else within my experience. We are now taking a survey of the tuberculous conditions in Fort Dodge, and we have gone far enough to find this: That is a city of 25,000 people with 3,000

children in our schools, we have not been able to find a single case of tuberculosis among the children of school age.

Dr. John H. Peck, Des Moines—I agree perfectly with what Dr. Scarborough has said about rest, but he is speaking from a sanitarium standpoint. It is almost impossible to get the degree of rest that is necessary in the great majority of cases that have to be treated at home, and it is so difficult to impress upon patients the necessity for this rest. Just recently I have gone at it in this way: I say to the patient, "Do you know the treatment for broken leg?" "Yes, the patient has to go to bed and stay there till it gets well," is the invariable reply. And then I say, "That is just exactly what you have to do with a broken lung." That is something they can understand. I tell them they have to go to bed for three months, and that then we will decide how much longer they will have to stay there. And it works out very well. The difficult point comes when you begin to give them graduated exercise. That is very, very difficult to carry out in home treatment, and therein lies the greatest advantage of the sanitarium. That is the time when these patients need the sanitarium, and, of course, during the acute stages of the disease, where the patient is under absolute control at all times. When in a sanitarium it is figured out that they shall have five minutes' walk and walk three hundred feet and back, you can carry that out very well, but if your office is seven miles away then you do not know what they are doing. The greatest trouble is that under home treatment they take this thing too much in their own hands and get altogether too much exercise. Rest in tuberculosis is the greatest thing for us to emphasize at the present time. Go out on the street and say to one hundred people, "My brother or sister has tuberculosis, what should they do?" and they reply, "Well, they have got to have lots of fresh air, go to Arizona, live in a tent, and have a lot of food." Not a word about rest, which is at least 75 per cent. of the treatment of tuberculosis.

Dr. H. Edward Kirschner, Los Angeles, California. I have very little to add to what has been said. It is a great pleasure to come back here after an absence of nearly eight years and see the good work that is being done to control and cure tuberculosis in your state. I am sure that the health records will show that quite a reduction in the number of deaths has been brought about. I can add only a few words to what the authors of the paper, Dr. Kime and Dr. Peck have said. I have always been a great believer in rest, and carried it out when I myself was under treatment. Every years I am convinced more and more of its importance. Recently, I had the pleasure of reading the first essay by Bodington, on the treatment of tuberculosis, written in 1820, and at that time he emphasized the importance of rest, just as we are trying to do today. In 1860 Brehmer of Germany emphasized again and again the importance of rest, and every year that Dr. Trudeau issued a report

of his work at Saranac Lake, he emphasized more and more the importance of rest. I tell the patient that tuberculosis, when acute and with temperature must be treated just as typhoid and pneumonia are treated. And it is just as important to put the patient in bed at absolute rest. When they can afford to do so, it is advisable that the patient have a practical nurse. In many cases I have the nurse feed the patient for the first three or four weeks and require the use of the bed pan. In speaking of rest for the body, we must also emphasize the necessity of rest for the mind at the same time. When giving this rest treatment, you can not put your patient to bed and leave him without an attendant, any more than you could in pneumonia or typhoid fever. When we first began to treat tuberculosis, we said that treatment consisted of a tripod—fresh air, diet and rest. As Dr. Kime has said, we have probably modified our ideas a little about fresh air, we have certainly modified them about diet, but we have never changed about rest. I am glad that Dr. Scarborough brought before you the importance of rest in all tuberculous conditions as well as tuberculosis of the lungs. As Dr. Kime has said, tuberculosis of any part of the body should be treated by rest. We, who were treating tuberculosis in private work, find just the point Dr. Scarborough emphasized. We get the patients usually when moderately or far advanced. Early in the disease they have possibly received advice such as this: I recall one particular case, that of a woman who was told to go out every morning before breakfast, take a deep breath and hold it and see how many steps she could take before having to breathe again. In another case that of a man who was told to go West and get light work. What did he do? He dug holes for fence posts and the result was that he became an advanced case and did not recover. The practitioners who see these cases early and carry out treatment from the beginning, must use rest. We are always looking for something new in the treatment of disease; we are always searching for some new serum or other agent that will do something wonderful. But in tuberculosis we have it all in rest, fresh air and diet. As regards artificial pneumothorax, from my experience, I can not at the present time believe that it will come into general use. It will only be employed in sanatoriums—the general practitioner should not use it. In discussing the subject of tuberculosis, I believe that rest is the most important point that could be brought before your meeting this year.

Dr. A. J. Hobson, Hampton—So far as the treatment of tuberculosis is concerned, I do not believe there is such a thing as treating tuberculosis successfully at home. Every case of tuberculosis should be sent to a sanitarium. Dr. Kirschner has referred to the tripod of treatment, which is recognized as the treatment. But the people at home will overdo one point of that tripod and underdo the other two points. It is important to have proper ventilation, but even if you manage to get the patient and the

family to cooperate with you, some neighbor will come in and interfere with your plans. Consequently the next time you call you will find that they have the windows down, or if you put them in a sleeping porch where they can have all the air there is, you will perhaps find the curtains down and they might as well be in their own room with the windows closed. Again, that point of the tripod which represents feeding they will overdo. They will assume that the patient must be thoroughly fed, consequently they will over-feed him. But the factor of rest is of the utmost importance in all diseases, and one of the most pernicious things that the laity has ever got into their heads is that one must always have exercise. In any case of disease in which the doctor recommends rest, some good-meaning neighbor will come in and say that the patient will never get his strength unless he takes exercise. It is absolutely impossible in a country place to keep a patient who feels well and looks well in bed three months. I am satisfied that, in some cases in which I have attempted to give treatment at home, I have lost patients who would have recovered had they been sent to a sanitarium. So I wish to raise my voice against any home treatment for tuberculosis. Every case of tuberculosis should be a sanitarium patient.

THE STATUS OF ROENTGENOLOGY IN THE DIAGNOSIS OF INCIPIENT PULMONARY TUBERCULOSIS*

ARTHUR W. ERSKINE, M.D., Cedar Rapids

If we consider incipient pulmonary tuberculosis to be that stage of the disease before the tubercle bacillus appears in the sputum, before caseation or cavitation is present in lung tissue, and before a pronounced general break down of health and strength takes place, it is evident that our methods of making a definite early diagnosis are limited in number and questionable in reliability.

An early diagnosis of pulmonary tuberculosis is not easy and yet it is most essential to the patient's welfare. It is proper then, that we consider what evidence as to the presence or absence of lung pathology, a roentgen examination can produce.

A roentgenogram of lung tissue deals with exceedingly delicate variations in density. It is essential, therefore, that an exact technique be developed, and that a high degree of skill in interpreting the meaning of such shadows as may appear on the plate, be acquired. In the matter of technique, I consider that stereoroentgenograms should be made in every case. The information

to be gained from the stereoscopic picture is so much greater and more exact than that which may be obtained from any number of plates as to justify its use as a routine procedure. Roentgenoscopy is not particularly useful in the examination of incipient tubercular patients. It has its place in the elimination of certain other chest conditions, such as collection of fluid, but as a general thing, the tuberculars with sufficient pathology to show on the screen, are no longer incipient cases.

The pathological processes occurring in pulmonary tuberculosis are primary and secondary. From a diagnostic standpoint, the primary or initial lesion need not be discussed, as its presence cannot be detected by roentgen or any other method of examination. The secondary lesions, according to Orndoff, are:

1. Dunham's Fan or Cone.
2. Diffuse Infiltration.
3. Consolidation.
4. Cavitation.
5. Caseation.
6. Calcification.
7. Fibrosis.
8. Pleuro and Broncho-Parenchymal Lesions.

In the study of incipient tuberculosis, it is the first two or three of these lesions in which we are most interested, the remaining five or six only occurring in moderately or well advanced cases. Diffuse infiltration appears on the roentgenogram as a clouding or increase of density to such an extent as to indicate the presence of air-filled spaces. The infiltrated area shows varying degrees of density. Consolidation, on the other hand, is more nearly homogenous and presents findings which indicate obliteration of the air spaces by their being filled with exudate. Both of these lesions may occur in incipient tuberculosis, that is, in patients who have no tubercle bacilli in their sputa, and show little or no daily temperature rise. They appear, however, in so many conditions other than tuberculosis that their presence can only be regarded as suggestive, not diagnostic.

The earliest recognizable pathognomonic sign of pulmonary tuberculosis is the fan or cone of H. K. Dunham. This lesion is not easily described. It appears in the stereoscopic roentgenogram as a cone shaped area of altered density, its apex toward the hilum and its base toward the periphery. The cone is not always at right angles to the lines of vision, and the base very often corresponds to the interlobar pleural surfaces, rather than the periphery of the lung as a whole. In order to avoid confusion on this account we must

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be able approximately to visualize the interlobar divisions.

It is by the detection of these three lesions, the cone, diffuse infiltration and consolidation that the roentgen ray justifies itself as a valuable adjunct method of diagnosis. The time has not yet come, may never come, when we can always make a definite early diagnosis of pulmonary tuberculosis by roentgen examination alone, but if it does no more than to show one where to listen with his stethoscope, it is worth while.

Visualization by the roentgen ray probably gives us a clearer idea of the character and extent of lesions in the lung than any other single method of examination except post mortem examination. It is not particularly desirable, however, nor is it conducive to good work in diagnosis to limit ourselves to one method of examination. The isolation of the roentgenologist in his laboratory is no more to be justified than would be limiting one examiner to auscultation and another to percussion. It is only by the most careful correlation of the results of the physical, roentgen and laboratory findings, with the history and temperature record, that we can hope to attain the maximum efficiency in early correct diagnoses.

Discussion

Dr. Thomas A. Burcham, Des Moines—I haven't very much to add to this paper, but would simply say that I agree with the essayist's concluding remarks as to the necessity of making early diagnosis of incipient tuberculosis. I think without a doubt that the roentgenological examination will reveal more in these cases than any other single method of examination employed at the present time. I do not believe that you can hear with the stethoscope or percuss a chest with any degree of success unless the lesion is so large that probably almost anybody could detect it. I recall a patient who was referred to a certain doctor in this city for general examination, and to me for an examination of the gastrointestinal tract. This patient had been an invalid for nine years and had passed through a good many doctor's hands. At the beginning of the examination I stood the patient in front of the fluoroscope and found the heart on the wrong side, in fact, I found, aside from the malposition of the heart, a complete transposition of all the abdominal organs. This condition had not been detected by any of the previous doctors. If a doctor cannot find a heart on the wrong side, I do not see how he is going to find a cavity or a little consolidation the size of the end of your finger such as Dr. Erskine has been talking about. So far as dependence upon the stethoscope is concerned, while in the army I found that many doctors who had come into the service from civil life were in the habit of wearing a stethoscope around

their neck all day long. They seemed to have an idea that they could hear and feel everything inside the chest. But after finding out that they had to write all their diagnoses on a slip of paper and send these to the adjutant's office, and that they must make a definite report on these cases, they learned that they had to have cooperation from the other departments. I do not believe that positive diagnosis of early tuberculosis can be made by means of percussion and auscultation, or even by x-ray examination. Some of the lesions that we are accustomed to seeing on x-ray plates are suggestive of early pulmonary tuberculosis, and it is only through extensive experience and with the acquirements of a great deal of skill in making the plates that we can say with any degree of certainty that the lesion is one caused by the tubercle bacilli. After all, the man who comes nearest making a definite diagnosis of incipient tuberculosis is the internist who has the patient under observation and can take and keep a record of all the clinical evidence in the case.

Dr. J. W. Rowntree, Waterloo—Two years ago it was my privilege to work with Professor Miller of Madison on the autopathological findings in tuberculosis. We examined material taken from various parts of the body, lungs were inflated and fixed in alcohol, portions of the chests were collected and many sections cut. The work as done at that time and some which has been completed since, shows that tuberculosis, as far as its involvement of the chest is concerned, starts in the lymph tissue in the crotch of the vessels and bronchi. These foci we were able to trace through a large number of sections. An eminent physician of Vienna has done a great deal of work on the pathology of tuberculosis in children. He has taken the lungs of 130 infants and on careful pathological dissection has found the primary focus situated in the different lobes in various percentages, and this primary focus gives after a time general systemic infection which every man has had. If I were to make an x-ray plate of every individual in this room, I would find in each case a trace of infantile tuberculosis which has affected the circulation and the glands of the groin. That is a fixed factor in roentgenology. Then the reading of plates in adult roentgenology involves, in my opinion, the recognition of the infantile tuberculosis of which we have practically all been cured or we would not be living, and taking the added information received from the outer zones of the lung, these consisting of the middle and outer portions. These findings were well worked out in our series of slides combined with the plates. So much, then, for the pathology and the anatomy. When it comes to testing this work out practically, while at Rush I was in charge of the x-ray department in correlation with other departments, and one man I wish to mention in this connection is Dr. W. W. Decker of the T. B. Dispensary of Rush. The tubercle bacilli infection leaves its footprints in the tissues, and they remain there as footprints in the sands of time. The pyo-

genic organisms do not leave the same footprints as the tubercle bacilli. For several years we conducted a series of correlated investigations in cases of tuberculosis and otherwise. Dr. Becker would indicate what were the clinical features elicited by auscultation, palpation, etc., then bring the cases to me and I wrote my findings, when we discussed the matter cooperatively. And that is important in scientific investigation—the getting together. In those cases that were not, after a period of six months to a year and a half, backed up by densities, Dr. Decker would say to the patients, "We will not say you are tuberculous, although from the clinical evidence I would say so; but you come back after a time." He gradually has come to the point where, in those cases in which one cannot find densities in the plates, he concludes they are probably pyogenic and not tubercular. If one carries out investigations of that kind he will probably, after a while, have some data worthy of presentation. Otherwise he will not—one man will say one thing and another, another, and we never get together on it. My contention is this: That while the clinical manifestations may be obscure, when you have these densities the evidence is there, the nail-holes are in the post. While inflammatory reactions give physical signs similar to those present in tuberculosis, if we would but ask corroboration of those signs from men working along these lines we would be able to come to definite conclusions. These cases that we studied and concluded were not tuberculous, came back and were well, but had varying signs which from his interpretation Dr. Decker was inclined to believe were not tubercular.

Dr. W. E. Scott, Adel—I am satisfied that there are a few men in the United States who are making early diagnoses of tuberculosis and cancer as well. While I have not used the method myself, I have ordered the apparatus and have seen it done. I believe the only method of making an early diagnosis in tuberculosis and in cancer is by the B-D-C method. That method is perhaps just as foreign to the members of this Society as anything can be, but in time you will verify my statement that the Bio-Dynamo-Chromatic method of diagnosis of tuberculosis and cancer as well as syphilis and some other conditions, as worked out by Dr. George Starr White of Los Angeles, Cal., is the method of choice.

Armour and Company have added five grain tablets of corpus luteum, ovarian substance, anterior pituitary substance, to their list. These tablets are packed in bottles of fifty and are labeled "five grain." Each tablet containing five grains of the dessicated glandular substance, each grain of which represents a quantity of fresh tissue.

Physicians desiring to use the glandular substances in tablet form may now obtain the Armour products in five grain tablets, as well as the two grain.

NERVE INJURIES OF THE WAR*

A. B. PHILLIPS, M.D., Clear Lake

Sufficient time has not elapsed since the war to give a complete summary on the end results of nerve injuries. Naturally it takes a long time for a nerve to regenerate after a slight injury and a much longer period after a complete severance and perhaps months of infection following a gun shot wound.

It is not possible to report the result of post-operative nerve cases in the hospital in England because sufficient time had not elapsed before I was called home. In the United States General Hospital at Fort Des Moines a series of 224 cases were examined after March 1, 1919 and the relative frequency of nerve involved was found to be

Ulnar 63	Great Sciatic 27
Musculo Spiral 57	Peroneal 25
Median 47	Long Saphenous 5
Musculo Cutaneous 10	Anterior Tibial 4
Internal Cutaneous 8	Anterior Crural 2
Brachial Plexus 6	Internal Popliteal 2
Circumflex 3	Posterior Tibial 2
Lesser Cutaneous 1	Small Sciatic 2
Anterior Thoracic 1	Lumbo Sacral Plexus 1
External Cutaneous 1	

There were five cases of root injuries. The series of cases here are slightly at variance with the nerve injuries at the large French and English hospitals.

One important difference is the relative frequency of ulnar and musculo spiral injuries. In the European hospitals the number of musculo spiral cases has exceeded the ulnar cases.

It is very obvious why the ulnar and musculo spiral nerve are the most frequently injured.

1. The ulnar occupies a very much exposed position.

2. The musculo spiral has a tortuous course.

The wounds which produce the majority of nerve injuries were caused by fragments from high explosive shells. The injuries caused by bullets were relatively very infrequent. Bullet wounds which fractured the humerus, very frequently involved the musculo spiral nerve.

The diagnosis of peripheral nerve injuries is comparatively easy, but the difficulty lies in determining the degree of injury, and whether or not the case is one that will recover without operation or not. The recovery of a partially severed nerve or injured nerve is so delayed, in the majority of cases, that it is not practical to wait to see if there will be definite return of function.

*Read at Austin Flint-Cedar Valley Medical Society at Hampton, November 4.



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EDGAR R. EARWOOD

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Length of service, two years

An attempt must be made to give a prognosis as soon as possible. It is difficult to say just what per cent of cases could be left to expectant treatment, and how many should be operated upon. Probably 70 per cent improved without operation. A few of these showed signs of improvement up to a certain point, and then remained stationary. Then an exploratory operation was done. All the cases of this nature which were operated upon under these conditions, improved after having a neurolysis done.

As soon as it was decided that a patient was to be operated upon other problems presented themselves for solution, namely, when is it safe to operate on a case of nerve injury where the wound has suppurred for perhaps months previously?

The rule followed here, has been to wait at least three months after the wound has been completely healed. Judging from very few post-operative infections that we have had here, the margin of safety of three months we allowed, seemed to be a very liberal one. Probably a safer rule, but one harder to follow would be to wait the length of time after healing that elapsed between the date of injury and the time of healing.

The preparation of a case for operation here is practically the same as is carried out in any civil hospital. The only exception is that here the government requires that each patient be given anti-tetanic serum, in addition to the other routine preparations.

Nearly every operation is begun under local anesthesia—Novocain being used—and is completed with gas-oxygen anesthesia, as soon as the patient shows signs of discomfort, or nervousness. The progress which it is possible to make under local anesthesia, depends almost entirely on the amount of scar tissue present. In some cases where the scar is small and well localized, the case could be completed without resorting to a general anesthetic. Extensive scar tissue is a great obstacle in these cases, and cause the operator the most difficulty and anxiety. The nerve must in every instance be freed from the scar tissue by very painstaking dissection. The greater the care in this manipulation the less likely the probability of injury to the nerve. As much of the scar is resected from the nerve and the surrounding tissue as possible, and then an effort must be made to keep the nerve from lying next to the scar. A bed for the nerve prepared by splitting a muscle, or better still, have the nerve placed between two normal muscles, is much to be preferred. The alternative is a fat-fascia transplant, placed preferably between the

nerve and scar tissue, and *not* around the nerve, unless the nerve is completely surrounded by scar tissue.

The nerve is either found with its ends entirely apart, or else there is a neuroma at the point of injury. This is often the equivalent of a severance. Whether there are any nerve fibers passing through the neuroma must be decided largely by the clinical findings as should be brought out in the history of the individual case. As a rule the neuroma is removed, for usually there are no nerve fibers passing through it. The nerve is carefully sectioned above and below the neuroma to those points where bundles of nerve fibers can be seen distinctly. The two ends are then brought together, end to end, and into as nearly normal relation as possible. The ends are held together by carefully sewing together the sheaths of the nerve. No sutures are taken through the nerve trunks proper. For suture material, fine silk may be used. But European hospitals have preferred catgut.

The nerve ends can usually be brought together by freeing the nerve for several inches above and below the point of severance. Along with this, flexion of the limb may be necessary so as to allow for less tension on the nerve, after it has been brought together. Very forcible stretching of the nerve is seldom necessary and not advisable. If the separation of the nerve ends is very great, a nerve transplant should be used. The lower portion of the musculo cutaneous of the leg is often used for this purpose.

In American Red Cross Hospital No. 1 there was available for statistical purposes 857 histories of peripheral nerve injuries, with the records of 205 reparative nerve operations, 151 of these having been followed during convalescence for at least six months after operation. An analysis of these records shows that the musculo spiral was the nerve most frequently injured during the war, the ulnar nerve was involved nearly as often. Following operation, the musculo spiral and sciatic nerves make the best recovery, the results in case of the sciatic being equally as good as those of the musculo spiral. The condition of an injured nerve when examined by sight and touch at time of operation is invariably worse than the previous clinical findings would lead one to expect. Every surgeon should repair a nerve as early as possible after injury. For this reason the different authors urge that in time of war neurologists should be placed close to the front in order that all the wounded may be examined for nerve lesions before going to the operating room. Patients recovering from repair of nerves should

be encouraged to use the extremity affected because volitional effort plays a part in the return of function.

The postoperative treatment of these cases is not unlike that following other operations. If it has been necessary to flex the limb in order to get the nerve ends together, then a suitable splint should be used to maintain this flexion. This splint is usually kept on for about fourteen days, although it is claimed by some nerve men that complete union between the nerve ends occurs in about five days.

Of course a certain number of failures must be expected after nerve suture. The series of cases at Fort Des Moines had not been observed long enough to determine the percentage. Tinelin in his treatise on "Nerve Wounds" says that there have been from 12 to 15 per cent failures in the number of cases he has observed.

RELATION OF DAY SCHOOLS FOR THE DEAF TO THE STATE INSTITUTION*

HENRY G. LANGWORTHY, M.D., Dubuque

In suggesting this subject for discussion as well as in a measure introducing Superintendent Rothert of the state school for the deaf to you, for which I am in a measure responsible, I consider it fortunate to have this opportunity to give you a brief outline of the important work and rather startling changes which have taken place in Iowa in the past three years with relation to the education of the deaf. It has not been so very long ago that even though we were specializing in the treatment of eye and ear affection, we knew comparatively little about the actual practical teaching of the deaf to take their part in life, and when a child came to us totally deaf or nearly so, we scarcely knew what to do with it or just how to be of the greatest help to the distressed parents. Of recent years, however, all this has been changed. In Iowa especially, we now have plenty of tools to point to; first, in the way of a better state school for the deaf at Council Bluffs; second, day-schools for the deaf as a part of the public school system at Dubuque and Des Moines, and third, legislative enactment which gives financial help to each deaf child permitting additional day schools to be established in any place where there is a sufficient number of deaf children in the district to warrant the starting of a new school. It is not my purpose to go into this important matter at length, as most of it will be

found in an important historical article arranged for by the Committee of Conservation of Vision and Hearing of this society, entitled "Matters Pertaining to the Education of the Deaf in Iowa" by J. H. Spencer, a few copies of which I have here for distribution.

Some four years ago I was requested to act as state manager for Iowa for the Committee of Conservation of Vision of the American Medical Association. In looking about the state at that time for the most important work to be taken up, I came to the conclusion that the deaf people needed better laws and a better school or schools, hence my efforts in this particular direction. I had not proceeded very far however, when through misunderstanding and the violent objection of leading oralists who frothed at the mouth over the fact that we dared use the term "combined system" of education at our state school, I really had some very unpleasant experiences. Determining, however, to go on just as planned in spite of much misinformation and criticism on the part of certain men of our profession who ought to have had more faith in us and our good sense, as chairman of the Conservation of Vision and Hearing Committee of our own State Society, I soon had a free hand and there was trust sufficient on the part of those in control of our State Medical Society and you men here, to believe that our special committee was doing the right thing, even though we were medical men and not politicians; and that we were at last standing on the threshold of greater and greater achievements. It has seemed to me as never before and for that reason I would like to repeat it that much of what has been accomplished has been due to the medical profession and the men of this eye and ear section particularly; certain it was that when I attempted to raise several hundred dollars to help put two bills through the legislature in 1917, the first to transfer the state school for the deaf from under the board of control to the state board of education, and the second to help push through another bill to establish day-schools for the deaf giving each child financial monthly support, many of you promptly contributed your dollars and ready word of encouragement and appreciation without which this paper and report to you would not have been possible today.

In closing this rather rambling paper and leaving many important matters for discussion, there are three things I believe worth requesting:

First, that when any deaf child comes under your hands, it should be your part in this work to see to it that the parents are told definitely that it

*Presented before the Section of Ophthalmology, Otology and Rhino-Laryngology, Sixty-Eighth Annual Session, Iowa State Medical Society, Des Moines, Iowa, May 8, 1919.

can be well educated in Iowa and made a useful citizen, and the parents can then be put in touch with the proper authorities.

Second, as we should try to keep these children of tender years as near home as possible, especially while in the formative state, it seems to me that the age limit for those in the day-schools should be raised to twelve years so that children from five to twelve, inclusive, would be taught in the day-schools, instead of from the lower age of five to ten only as at present.

Third, we should continue in the legislature to agitate the matter of allowing an additional hundred dollars per pupil per year to help board deaf children in day-schools, where they have to live away from home. In most instances the parents of such children are under considerable expense as it is, do not come from wealthy families, and really need additional appropriation to help pay these living expenses.

Finally in closing, I am happy to say that we are now getting the fullest cooperation possible between all factions, and that this coming year we are making every endeavor to build up the state school for the deaf at Council Bluffs to which the day-schools should serve as the important feeders. The support fund of the state school has been increased 50 per cent, and a \$50,000 segregated department for young deaf pupils will be erected. We have the assurance of the state board of education that given five year's time we will have a state school second to none in the country, and that it will be adequately supported. I am also pleased to report that the general assembly has passed a compulsory education bill for the blind and deaf authorizing the employment of an agent or "traveling inspector," whose business it will be to look up deaf and blind children and place them in school.

INSTRUCTION OF THE DEAF

HENRY W. ROTHERT, Council Bluffs

I fully intended to prepare a complete synopsis of this important question of the education of the deaf, but have been unable to do so. I thought possibly this might be considered in the nature of a question box, and if any of the doctors desire to ask any questions relative to the education of the deaf, I will gladly respond, as far as I am able.

I feel especially gratified that the medical profession are taking an interest in the deaf child, and attribute this movement very largely to the efforts of such good friends as Dr. Langworthy and a few others. The laity know very little about

the education of the deaf. The deaf are part of God's children, and are entitled to attention and sympathy, the same as other afflicted human beings receive. Nor does an institution like the school at Council Bluffs attract attention and prompt a visit, as do many of the other state institutions. In the case of an insane person the community knows all about, the hospitals at Cherokee, Clarinda or Mount Pleasant and becomes, as it were, acquainted with the management of those hospitals. It is the same way if a human being transgresses the law and is sent to an industrial school: the church workers and the ladies of the community and the pastors all know about those institutions and are interested in them. The same thing is true in a very large measure with the blind. Our sympathies go out to that unfortunate human being, and we know more about the college for the blind at Vinton than we know about many other state institutions. But it is not so with the deaf. You don't know that they are handicapped unless perchance they come under your medical observation. And so it is true that there is very little known about the education of the deaf, but I want to say that the results of the school at Council Bluffs overreach the results of any other state institution in Iowa. I think Iowa's medical fraternity having special charge of our hospitals will bear me out that statistics show that the cases treated there show 40 to 45 per cent of cures, while the number of cures at the institution for feeble-minded children amount to less than 20 per cent. At our reformatories not more than 50 per cent; while at the college for the blind from the nature of their dependence, not over 45 per cent. And yet this state school for the deaf, with its opportunities for making of these unfortunate children educated, intelligent, self-supporting citizens, and returns 98 per cent to the community, is overlooked. It should be the duty and desire of every citizen of Iowa to become better acquainted with the education of the deaf.

These processes of educating deaf children are divided into several classes. The auricular method is based upon the thought that if you constantly, continually, persistently, cry "O" in the ear of the deaf person, that ear becomes responsive to some of the waves.

The other method is what we call the oral method—the articulation of words, which combines with lip reading. This is the progressive method in the education of the deaf. There is considerable difference of opinion among educators of the deaf as to the absolute value to be placed upon this method in comparison with the

other and possibly original method of educating the deaf. Some schools use a combination of the two systems, but it must be understood that each method is resorted to in individual cases, and not the combined system, in so far as to endeavor to educate the child by means of both methods. The expression "combined system" implies that in that school where it is employed that system or method is resorted to which will benefit the particular case; in other words, we fit the method to the child, not the child to the method.

In the Iowa school we have steadily progressed in the recognition of the oral method, and are now teaching two-thirds of our pupils by means of it. The manual method is finger spelling in connection with the sign language. Sign language is a language of ideas (illustrating). The sign for a doctor is feeling the pulse. Mixing is the sign for medicine. Everything in front of a person is in the future; everything in the rear is in the past. Signs made from the forehead are male signs; signs made from the cheek are female. These have their origin in years past and gone. (Further illustrating.) Resorting to finger spelling and the sign language alone occurs only at our chapel exercises. This sign language is the language of the deaf. It is, in our judgment, necessary for their happiness in future life—for their social and religious intercourse with each other—not with the outside world. The consensus of opinion is that there is no objection to it, if properly used. The objection is the resorting to facial contortion and gesticures during the early, impressionable years of youth.

You understand the main purpose and object of all this education is the mental development of the child—teaching him to think in the American language. That cannot be done by the sign language. It can be done, perhaps, by the use of the manual alphabet and writing, but it can better be done by means of this oral instruction. The child who thinks in signs in all probability will say "apple good," not "good apple." When he says "apple good" he does not think of the words, but of the signs, and there is where is the great mistake. The orally taught child will think of "apple" as we do—the word "apple," not the sign. I may say, "I am going home this evening" (illustrating), but possibly only one in ten will say it that way; they will say, "Go home tonight." You can readily see the reason why the sign language has to be relegated back until the time comes when the adult can use it, as a matter of contentment and happiness, with some of his friends. We teach our daughters music, and we are now teaching our sons French. These are ac-

complishments. The sign language is also an accomplishment and should be considered in that way only.

I want to assure my hearers that the Iowa school for the deaf stands as far as can be for oral instruction. It has come to me that some practitioners in this special branch have expressed the thought that we do not recognize the value of speech reading. That is a mistake. We have a number of possibly as good teachers in this special branch of education in Council Bluffs as can be found anywhere. Wise men always differ in the results of the application of these different methods, but we feel that the parents are really the ones who ought to be especially interested in the education of their deaf child, and I hail with a great deal of pleasure the organization of these parents' associations. Imagine, if you please, the totally deaf child sent to a school a hundred miles away and placed in the care of strangers. Unfortunately some of them are sent home before much has been accomplished because of the urgent request of the parents to have the child back. But when the child returns home to its parents and looks up into their faces and says in plain language, "I love you, mamma," "I love you, papa,"—a child who never heard a sound from its parents' lips, do you wonder that those parents thank God that there is such an institution as ours.

Discussion

E. R. Lewis, Dubuque—This has been a very interesting talk to me. Two or three things came to my mind. I wondered if there is any classification of the incoming children in such institutions as yours with respect to their individual physical equipment for use in settling the question as to which method is best adapted to the individual. The nearsighted child would be very much handicapped in the matter of attempting to learn the oral method. The auricular method might be very well adapted to certain types of insular deafness; others would be absolutely hopeless. It seems to me that the problem would be at least threefold in its aspect from the standpoint of the educator. One would be, the possible relation of this particular individual to the body politic as a fellow being; the second, the possible relation of this individual to his fellow mutes and to his intimates; and the third would be, what open avenues leading to the central nervous system is the individual equipped with.

Mr. Rothert—There is no such classification in our school, for the reason that we have had no money to do what we would have been glad to do. Our school has not been recognized by the legislature as it should have been, we have been very poor, and it has been only by strenuous efforts and keeping the reins very tight in my hands that we have been able to keep the institution open. Other schools

like Kentucky, Indiana and Michigan closed their doors part of last year. These tests that the doctor speaks of are only recognized, possibly, in this way: The child is entered and assigned to the oral department. If in the course of time it appears to the teacher that the mental development of the child is retarded, the child is then transferred to the manual department. The Binet-Simon test as to mental ability cannot be applied. We have tried that, and because of the lack of response for want of understanding questions we have determined not to use it. But as to the physical condition of the child I want to say that what the school needs is a nurse, an oculist, a dentist; and by the liberality of the past general assembly I hope that we will have them. This professional help is necessary so that the child will be on an equal footing with the child in the public schools.

Dr. W. B. Small, Waterloo—The first thing that occurs to me is the kind of examinations that are made when these children enter the school, and again when they leave it, to know their condition, not only physically but mentally and whether totally deaf. This is just as necessary as it is for us to examine the patient who comes into the office, and it would make much difference whether the examination is made by a layman or by a physician.

Temporary Chairman Langworthy—To facilitate covering this ground more completely, I am going to call on Mr. McCook, president of our Iowa Association for the Advancement of the Deaf—a totally deaf gentleman who speaks only by the sign language; and I am going to ask Principal Long of the Council Bluffs school, who is a totally deaf man himself, to interpret what Mr. McCook says by the oral method, so that you can see at a glance the tremendous advantage of the oral method in adapting the individual in his relation to the outside world.

(The demonstration then took place.)

F. W. Dean, Council Bluffs—I have lived within about three miles of this institution for a number of years, and think that the point Dr. Small brought out is the important one. And the matter of the education of the deaf should not be limited to the deaf; the parents of the deaf are the ones that should be educated. I have been down at the institution a number of times at the request of Mr. Rothert and found pupils with chronic discharging ears involving the mastoid; children who were unable to breathe through the nose on account of adenoids and immense tonsils; children with ethmoiditis. I remember one time I saw five, and out of the five two had suppurating mastoid, one on one side and one on both sides; one of them had a rhinolite in his nose that I removed at the time, and was censured for it because the parents did not consent (it was formed around a peanut); two had tonsils and adenoids complicated with ethmoiditis; one of them had a diseased antrum. Mr. Rothert wrote to the parents of all five and said that I advised operation, and they wrote back that they did not want the children operated. It seems to me that the

thing for this society to do is to see if we can't educate the parents of the deaf to see that their children are physically fit. Of course, as Mr. Rothert says, that institution has been handicapped, and the reason that Vinton is known better than the Council Bluffs school is that Vinton was turned over to the board of education some time ago. The school for the deaf, unfortunately, is three miles from Council Bluffs. If it had been beyond the five-mile limit, so that Council Bluffs could have kept up her twenty-nine saloons, it would have been turned over to the board of education. The board of control, instead of trying to boost for the school in the way of getting funds, has tried to report to the legislature as small a bill as possible, and that is where the handicap has been. I think for management of an institution and getting along with a small fund, you could hardly pick out another man who would do the work that Mr. Rothert has done. Mr. Schroentgen, who is a member of the board of education told me that Mr. Rothert did not want to go on with the full duties of his position, as he is getting older, but he did not see how the board could find any man who would be a better manager and look after the funds of the institution any better than Mr. Rothert. He deserves a great deal of credit in that way, and has been handicapped not only on account of the action of the board of control and the legislature in not giving funds, but because we have not educated the parents. That is the necessary thing, if they want to do the best for their children, they should have them physically fit before they go to school, and if they are not when they arrive the parents should give their consent for the work to be done there.

Dr. W. W. Pearson, Des Moines—Did you find many evidences of syphilitic trouble?

Dr. Dean—A great many of them have luetic troubles untreated, and some of those children are in a very bad way. You will find them totally deaf, and also have retinitis pigmentosa which is incurable and will gradually get worse. Some of these children will perhaps be taught the oral method and lip-reading, and later on they will be blind and can't see well enough for that. Those things ought all to be put down on a card when they enter school; they should have a thorough examination as to the condition of the whole system; and if there is any such disease as retinitis pigmentosa the fact should be put down and taken into consideration in choosing the method of teaching.

Dr. Small—Who determines whether or not the patient is one who should go to the school for the deaf? Is it left to the superintendent or to the physician? It seems to me this is of vital importance. For instance, I think we all agree that there surely must be some mental development that we get through our hearing. Who is to determine whether that patient is mentally deficient on account of inability to get impressions through the sense of hearing. The superintendent made the statement that a large percentage of those who go into the school are

given back cured. I assume that he did not mean cured in the way of hearing again, but made more fit to go back into society. But it makes a lot of difference where you start from to know whether or not you have any improvement, and what that improvement has been.

Mr. Rothert—Let me ask the doctor if he has any thoughts at all about the institution? It is not a hospital; it is simply a school—a part and parcel of the public school system. We have a physician to attend to the pupils who become ill. If it is right to educate the hearing children of Iowa, and you say it is, then it is right to educate those who are deaf, and this is simply an educational institution. The blanks are filled out in the name of the parents, and the cause of deafness, which comes from the family physician, is given, and that is all. Then the child is admitted to this school as a deaf child. I think we have had forty or fifty of our children sent to Iowa City to have their tonsils and adenoids removed. Two of the physicians, assistants of Dr. Dean, came to our school at two different times and spent a day or two and made their report to Dr. Dean. We send our children to Dr. Dean of Council Bluffs as far as we can. We have had no money, no revenues, no pecuniary help, to have a resident physician, as we should have, and if we did have, then there would be opportunity for the children to be turned over to this physician when they come. But we must not forget that the examination as to mental condition comes after the child has been admitted, not before. When a child is deaf that child is entitled to its education, and we say take it, and if in due course of time, when the child is under the training and supervision of the teachers, more or less is determined as to its mental condition. I want to say that we received from many parents who claim they are deaf, when they are certainly feeble-minded. It seems there is a disposition on the part of the fathers and mothers of Iowa children to force upon the school for the deaf mentally weak, feeble-minded children. We sometimes are deceived; we have admitted some children that are feeble-minded; and wherever it does occur, in due course of time, after investigation, that child is sent back.

Dr. Small—There are one or two points that I want to correct that it seems to me vitally important. Who determines the condition of that child, whether he is mentally fit to go to that school for the deaf or not? It is of vital importance to this state and to every one of us who determines whether that child is a suitable child to go to that school. I am asking for information; I want to know. It makes a lot of difference to me whether the superintendent of that school determines whether that child is mentally fit to be put into that school, or whether a physician determines it, an oculist and an aurist, or if necessary, an alienist. I understand that it is a school, but there must be some process by which the determination is made as to whether they are fit for that school or not.

Chairman Shore—I want to ask Mr. Rothert if the Perkins law, which applies to the cripples of the state, in any way applies to the deaf?

Mr. Rothert—We take advantage of the Perkins law in every possible way. We have our vacations, as the hearing schools do. During this vacation I expect to have a number of children sent to Iowa City. I want to introduce Miss Watkins, who has been with me as a teacher in our school for a great many years. She has been the head teacher of the primary manual, and is now the head of our extension department.

Miss Watkins—I want to answer Dr. Small's question. There is no place or persons to determine the mentality of the different children. Even the tests that are used with the hearing child are useless; so that that work is done in our school; no physician can do it. Physicians have not been educated up to the point where they can decide on a deaf child's mentality; neither can the parents. That is why we in our first few years make a special effort to try to place the child where it can be educated. Some are raised at home just like animals; they seem to have no intelligence at all, and when they come to us we look at them and sometimes say they are feeble-minded. But after using our methods with them we develop their intelligence and it appears. Some appear to be hopeless for two or three years, but they turn out to be backward and not feeble-minded. We have had several of those, and it takes a trained teacher to determine their condition. It takes time; it takes months—years sometimes. It took us four years to develop one of Dr. Dean's patients; he seemed to be a hopeless case when he came to us. Now he is able to read and write and to understand. He will never be a brilliant man, but Glenwood was not the place for him. By patiently working with these slow ones we develop something in those children, but no one could do it as the teacher does; the public and even the doctors are not educated up to understanding the deaf children.

Dr. Dean—I think perhaps that is true, but there are other things to be taken into consideration. I know that about four years ago, in the fall, a father and mother brought a girl about nine years old into the office and wanted me to examine her for deafness. I did, and told them that I couldn't see anything wrong with the hearing apparatus. The bone conduction was perfect; the air conduction was not. The child had enlarged tonsils and adenoids, and I told them that if they were removed the child could go to school at home. They went on down to the institution, and the child stayed there until spring. On the way back from the school they stopped into the office, I sent them up to the hospital and took out the girl's tonsils and adenoids, and asked them to let me see the child in the fall. I got a letter from the mother in the fall saying that the child could hear well enough to go to school at home. If such an examination could be made, a good many children, it would be found could hear and stay at home.

The taking advantage of the Perkins law has been done since the board of education has taken hold of the school; before that nothing of that kind was done. I don't know as Mr. Rothert knows it, but they were sent to Iowa City on my suggestion. The board asked me if I would take up that work. Both my associates were in France and I couldn't do the work. I think it is really the thing to do to send them to a state institution that does that work. It is not only a benefit to the children to be taken there and have the work done, but it is also a benefit to the medical department, of which we should all be proud.

Dr. Small—I don't wish to take the time if there is any objection, but I think I may be misunderstood. I think we are all looking for the same thing. We all want to do the best for the school and the best for these people who are in the state. My contention is this: that if a layman can tell reasonably well whether a child is mentally fit to go into the school, a physician ought to be able to tell a good deal better. It is not because some may be kept in who might be at home; they do not know at first who are incapable of mental development; but it is those cases that are turned away who ought to be in there. My contention is that every student who goes into that school should be properly examined before he goes in by a physician or physicians.

Miss Watkins—In testing the mentality of a normal child you can talk to it. The deaf child has no language, speech, gestures. How are you going to decide—how can a physician decide? You talk to the little child of five or six and direct it to go here or there: it shows whether it has understanding or not. How can you decide as to a deaf child's mentality when you have no means of communication with it? Even the parents do not have it.

Dr. H. G. Langworthy—In closing I merely wish to say that all this has been a long story and impossible to become acquainted with its various aspects within a short time. I have spent four years in studying the question and am just beginning to feel that I know something about the proposition. It is unfortunate that we have had to contend with so much misunderstanding but that is past and we now have clear sailing in this state. The way in which the Iowa Association for the Advancement of the Deaf, the authorities at the Council Bluffs school, the State Parents of Deaf Children Association, and our own profession and the ear specialists of the state, have swung into line in true cooperation, has been nothing short of remarkable. In considering what is best for each individual child we must of course have a consensus of opinion on the part of physicians, specialist and teacher on main points, but after that I believe we must rely mostly on the good sense of the trained teacher of the deaf, who decides what form of instruction should produce the best results for the individual child. I trust that this section will have faith enough in its conservation of vision and hearing committee to continue it another year, and feel that we will do the best we can. We do owe

something to Superintendent Rothert, who is retiring this year to be placed on the honorary list of the institution after thirty-two years of continued service. These educators and teachers who are giving their lives to such a service must be given a substantial testimonial in the way of honorable pensions, and that is something, gentlemen, which should be our duty to bring about.

C. P. Franz, Burlington—I move a vote of thanks to Mr. Rothert, Mr. Long, Mr. McCook and Miss Watkins, who have participated in this discussion.

(Motion duly seconded and carried.)

MEDICAL EDUCATION IN IOWA

THE IOWA COLLEGE OF PHYSICIANS AND SURGEONS OF DES MOINES AND THE MEDICAL DEPARTMENT OF DRAKE UNIVERSITY

D. S. FAIRCHILD, M.D., F.A.C.S.

Toward the end of the period of new private medical college enterprises the profession of Des Moines began to consider the question of establishing a medical school in that city. Des Moines had become the capitol of the state, the political center, and promised much in the way of commercial prosperity and growth. It was apparent that the city would outgrow all other cities in the state and under conditions then existing in relation to medical education, Des Moines was the logical place for the medical school in Iowa. No one at that time could foresee what the requirements for a medical education would be in the near future.

In 1874 or 1875 Dr. A. G. Field began to agitate the question of a medical school in Des Moines. Dr. J. F. Kennedy soon became interested and also Dr. J. A. Blanchard. Numerous conferences were held in which Dr. J. T. Priestley, Dr. D. S. Fairchild and others participated. The discussions were not materially different from those which marked the organization of other infant industries with small capital; would the financial returns warrant the investment in the face of the existing competition? Every important city in the United States had one or more medical colleges. All presented certain attractive features according to location, but all agreed on one very important feature, and that was that the courses should be conducted with such skill that few candidates for graduation would fail. With such attractive features it was yet a serious question if enough students would matriculate to pay current expenses. To give the necessary time as a teaching faculty was something but in addition to give money was more. However, in 1881 the plans were perfected for opening the regular ses-

Des Moines is hostess in May and extends a cordial welcome to the medical profession as her guests.

Come and bring your friends. Enjoy the social as well as the scientific sessions.



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Des Moines--a

DES MOINES covers an area voted to parks and its fine residence golf links.

DES MOINES river front and public buildings is the marked property by well developed

DES MOINES has 110 churches, educational centers, schools, twelve hospitals are shopping, manufacturing and unusually a

1—Iowa State Capitol 2—Soldiers and Sailors Court. 6—Park Cabin. 7—Methodist Hospital. 8—Y. 12—Des Moines Club. 13—Des Moines River. 14—His

SIXTY-NINTH

Des Moines

May 12, 13 and 14

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3—Court House. 4—Iowa Building. 5—Municipal
ke University. 10—Y. M. C. A. 11—Mercy Hospital
15—Municipal Building. 16—River and Power House.



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ANNUAL SESSION

AGEMENTS
.....Davenport
.....Des Moines
.....Des Moines
.....Des Moines
.....Des Moines

Des Moines

Awaits Your Coming

sion in 1882 under the name of the Iowa College of Physicians and Surgeons.

In those comparatively early times various reasons were given for the organization of a new medical college, generally a "long felt want." Sometime a sense of loyalty to the growing city. It was sometimes said by those outside, that these enterprises grew out of a desire on the part of ambitious men to become professors; that it was a modest way of advertising. There was perhaps some evidence in support of this view. In older centers of population when the existing schools could no longer supply enough professorships for all the ambitious practitioners of the healing art, new schools were brought into existence. In the Western states, state universities were not thought to be complete without a medical department regardless of the size of the town or the natural facilities for such work and no city with possibilities could afford to be without a medical school, or at least, that was the way the local profession looked at it.

The first course of lectures opened at the Des Moines school in October, 1882. Dr. D. S. Fairchild was selected to deliver the opening address the week before formal lectures commenced. The address was delivered in the main lecture room on the third floor of a building adjoining the Old Register building on Court avenue.

The faculty consisted of J. A. Blanchard, M.D., Principles and Practice of Medicine and Dean of the Faculty; A. C. Simonton, M.D., Surgery; J. F. Kennedy, A.M., M.D., Obstetrics and Diseases of Children and Secretary of the Faculty; W. H. Ward, M.D., Gynecology; J. T. Priestley, M.D., Anatomy; L. C. Swift, M.D., Physiology; T. E. Pope (Professor Chemistry Iowa State College Ames), Chemistry; D. S. Fairchild, M.D., Ames, Pathology, Histology and Microscopy; E. H. Hazen, M.D., Eye and Ear; F. E. Cruttenden, M.D., Diseases of the Throat and Nasal Passages; Judge C. C. Nourse, Medical Jurisprudence, and C. M. Colvin, M.D., Demonstrator of Anatomy.

The requirements for graduation were three years with a preceptor including two courses of lectures of four months each, the last of which must be in the Des Moines school. No special admission requirements were made at that time, but it was understood that a teacher's certificate would form the basis of literary preparation. There were now three regular medical schools in operation in Iowa and these three schools soon became centers of medical factions which in a few years entered the State Society and created no little discord.

The standards adopted by the Iowa College of Physicians and Surgeons were similar to the standard adopted by nearly all the schools in the United States. Very imperfect indeed, but the competition for students was such that no school up to that time had the courage to raise the standard of admission, or extend the course of medical instruction. Rush Medical College, the largest and most influential of the Western schools in its announcement for 1883 states as follows: "The annual course of lectures commences on Monday, December 4 and will continue sixteen weeks. The requirements for graduation are three years study with a reputable physician. Two courses of lectures, one of which must be in this institution (or two years practice in lieu of one course)" etc.

Dr. J. A. Blanchard was the first Dean and served two years. When he resigned Dr. D. S. Fairchild was elected president of the school which office he held until the school was taken over by Drake University in 1886 when Dr. Lewis Schooler was made Dean.

The Iowa College of Physicians remained a purely private school until 1886-1887 when it became the medical department of Drake University, and began to assume some of the dignity of an university school as much at least as was warranted under the circumstances of an empty treasury with very remote possibilities. Drake University which had been expanding by organizing professional schools to become more distinctly a university, made up a medical department by bringing together a group of eclectic physicians to constitute a medical faculty. It was believed by the scholarly men who made up the official body of the university that the term eclectic meant a broader conception of medicine than any other system and more in accordance with a devoutly religious faculty.

But in the course of three years the university medical faculty meetings became so discordant that on occasions it became necessary for the police to preside. Finally the character of the discussions, the language used, the broken chairs and other things became so abhorant to the board of trustees that the eclectic medical department was discontinued. It now came about that negotiations were commenced by which Drake University was to absorb the College of Physicians and Surgeons. The affairs of the latter were placed in the hands of Dr. Lewis Schooler who concluded the negotiations, became dean of the medical department and professor of surgery. During the foregoing period of the history of the college the institution was able to pay its rent and other expenses and was in good standing with all

American medical colleges. No salaries were paid the faculty, and Drake continued the same policy. The affiliation with Drake University was only nominal and but for the persistent energy of Dr. Schooler the medical school would not long have survived. In 1903 the question of final abandonment was under serious discussion; it was then that President Bell and Governor Drake (the founder of the university) began an earnest effort to revive the medical school. Dr. D. S. Fairchild was appointed to the position of dean and professor of surgery. Up to 1893 no regular clinic had been held. The only hospital in Des Moines up to that time was a small private residence which had been converted, known as Coltage Hospital, although added to from time to time is contained only a few beds. The clinics were irregular. The instruction was therefore chiefly didactic. With the building of Mercy Hospital Dr. Schooler was able to arrange for a regular surgical clinic and Dr. J. T. Priestley who was professor of medicine now organized a fairly good medical clinic.

In 1903-1904 the university was able to secure about \$20,000 for a building to provide for the clinical faculty. The laboratories and anatomy, physiology and chemical departments were provided for in the science building on the university grounds. The clinics were held at Methodist and Mercy Hospitals and with the erection of the new college building a fairly good dispensary clinic was developed.

With the reorganization of the medical school in 1903 the first two years students were placed under the direction of Dr. F. J. Smith as junior dean, the first time freshman and sophomore students were able to avail themselves of the instruction of full time teachers.

It may be said therefore that in 1903-1904 Drake University School of Medicine began to take on the character of a real medical school. The course of instruction included four years of thirty-six weeks each with an entrance requirement of an approved high school course with two years in college. Previous to this time the school followed the requirements of the State University but now it boldly adopted the more advanced requirements and petitioned the state board of examiners to require of candidates for examiners the high school and college entrance requirements and the four years of thirty-six weeks each of medical school work which was soon accepted by the board and has been the rule since.

The full requirements stated above were not put in operation at once in 1903-1904 but were germinating, and did not actually come into operation

until two years later. In 1908 the Keokuk medical school realizing that a medical school without considerable financial resources was impossible and that student fees alone fell far short of meeting certain fixed expenses, opened negotiations with Drake to take over the equipment of that school and merge the two institutions at Des Moines under the name of Drake University School of Medicine including the dental school. The merger was accomplished and the session of 1908 opened under rather encouraging conditions. But the dean of the school who was in close touch with medical school sentiment as it existed in the council of medical education was thoroughly convinced that Drake University did not possess sufficient financial resources to continue in operation many years and hold high rank among medical institutions, requested to be relieved. Dr. Fairchild who had completed twenty-five years of uninterrupted service without money compensation and with the prospect of further financial assessment and the devotion of a large part of his time to the work of the department felt that the time had come to transfer the position of dean to other hands, but was induced to continue another year and in 1909 at the close of the session presented his resignation which was accepted and Dr. W. W. Pearson was elected dean.

The election of Dr. Pearson was fortunate. The work of organization had been completed but there was much to do in perfecting the details and the filling of important positions and in providing means for the expenses which were rapidly increasing. Dr. Pearson with great energy and skill rapidly increased the efficiency of the work and if a sufficient endowment could have been secured Drake University medical school would have become an institution of much importance and influence. With the close of the session of 1913 it was announced the Drake Medical School would be discontinued and would merge with the Medical Department of the State University of Iowa at Iowa City.

We believe it may be fairly said that few instances can be recorded of greater devotion and self-sacrifice to the cause of medical education than was exemplified by a small group of the medical faculty of Drake Medical School. Many changes in the faculty occurred. During the periods of apparent prosperity when it seemed that permanent success was assured, men were easily found who were willing to serve. But during the dark days Drs. Schooler, Priestley, Fairchild and Smouse and a few others were staunch and made many personal sacrifices. The graduates have generally held responsible places in their respec-

tive communities and some have reached marked distinction. The general average certainly ranked high, not so much perhaps because of their medical learning, but because of their ideals. In the last years of its existence under the administration of Dr. Pearson the facilities, equipment and thoroughness of instruction had reached a high degree of efficiency and bid fair to equal the best of the smaller colleges, but the day finally came when the school must end its existence and in an honorable manner by candidly and generously admitting that the necessary endowment could not be secured to maintain a modern medical school. It may fairly be admitted that the medical school organized in Des Moines in 1882 had a beneficial influence on the profession of the city. At no time in the history of the institution did it encourage or even tolerate irregular or questionable methods of securing students or permit members of the faculty to use the school for private advantage or gain, except such as was incidental to the position held in a medical college. Those who have known the school during the period of its existence can bear witness that its methods were ethical. It will be granted we believe, that its influence was for higher standards of medical practice and in some measure at least the most prominent practitioners of the city gained an inspiration which has been and will continue to be helpful in future years.

In tracing the development of better preparation for entrance and graduation Drake followed the course of other medical schools. It was generally recognized that the average medical student sought the school that would bring him into the profession in the shortest time possible and one school watched the other for any signs of better management or the introduction of more attractive features. It may be said that higher entrance requirement and longer courses of study were not regarded as attractions. The providing of endowments for medical schools led to some experiments in this direction and public professional opinion came to the aid of medical colleges which would like better conditions. Finally one school bolder than another demanded three courses of lectures and to the surprise of many instead of loosing apparently gained in strength. Soon the length of the term was increased and four years of medical study was required with longer lecture courses; then a four years high school course was recognized as the necessary minimum entrance requirement. This was followed by one year in a college of liberal arts, then two years and at last two years of college work and four years of nine months each in a medical school and

now we may expect that the addition of a hospital year which has been adopted in a few states will be the standard requirement.

In the earlier years of reform in medical education the council on medical education came into existence to stabilize and standardize medical education and has been a most potent factor in promoting progress in this direction, and finally there came into existence the national examining board which will gradually obliterate state lines and will lead to but one examination to practice in all the states and foreign countries.

BRIEF HISTORY OF MOBILE HOSPITAL NO. 1

COLONEL DONALD MACRAE, JR.

The formation of Mobile Hospital No. 1 was begun April 25, 1918 by Major Donald Macrae, Jr., M.C., U. S. A., under the following order:

AMERICAN EXPEDITIONARY FORCES
HQS. SOS., France, April 25, 1918.

Special Orders {
No. 44 }

Extract

Par. 42. Major Donald Macrae, Jr., M.R.C., will proceed from Camp Hospital No. 27 to Paris, France, for duty as Commanding Officer of Mobile Hospital No. 1, with station in that city while this hospital is located there.

The travel directed is necessary in the military service.

By Command of Major General Kernan:
JOHNSON HAGOOD,
Chief of Staff.

Official:

L. H. BASH,
Adjutant General.

This order was about to make a complete change in the destiny not only of the organization of Unit K, but of each and every member thereof. Each man and woman, when later transferred to Mobile Hospital No. 1 realized the importance of the active work ahead, but few appreciated the frightfulness and awfulness of the life, the horror of the shells and bombs, and fewer still held the slightest conception of the meaning of the words "non-transportable wounded."

The sights seen, and the life lived with Mobile One have impressed each and every one of its personnel to the extent that his whole moral fabric must be more or less permanently affected.

HOSPITAL UNIT K

Major Macrae, after his return from Mexican Border service in March 1917, resigned from the

Iowa National Guard in order to organize a hospital unit.

Having received permission from the surgeon general of the army, this unit was formed in short order and given the name K, in spite of the fact that it was the first letter unit ready for service, April, 1917.

The twelve medical officers, twenty-one nurses, and fifty orderlies were soon enrolled in the Red Cross, mustering in of these men into the United States Army did not take place, however, until June 18, 1917.

The following Iowa doctors constituted the staff: Major Donald Macrae, director, Council Bluffs; Capt. F. Earl Bellinger, Council Bluffs; Capt. Chalmers A. Hill, Council Bluffs; Capt. John W. Shuman, Sioux City; Capt. Louis L. Henninger, Council Bluffs; Lieut. John S. McAtee, Council Bluffs; Lieut. Aldis A. Johnson, Omaha; Lieut. Robert C. Crumpton, Webster City; Lieut. Albert E. Sabin, Kirkman; Lieut. Robert S. Moth, Council Bluffs; Lieut. Louis E. Hanisch, Council Bluffs; Lieut. Edwin H. Pratt, Omaha.

Sixteen of the twenty-one nurses were from the Jennie Edmundson Memorial Hospital of Council Bluffs. Practically all of the officers were sent to various training camps.

On November 9, 1917, orders were received to mobilize all officers and men at Fort Porter, Buffalo, N. Y. The organization arrived at Buffalo, November 14, when all were "present or accounted for," except Lieutenant Pratt, who was later dropped from the rolls and Lieut. Peter G. Fagone, New York roentgenologist, was substituted for him. The nurses departed from Council Bluffs on Christmas Eve for Ellis Island.

On January 15, 1918, the entire organization boarded the Cunard liner "Carpathia," now at the bottom of the Atlantic, and sailed the same day for "somewhere." At Halifax, we were met by numerous other transports and conveyed across the sea.

Our ship docked at Glasgow, Scotland, January 31, 1918. That same night saw the officers and men headed overland for Winnel Down "rest" camp at Winchester, England, while the nurses proceeded to London.

After three days' "rest," we were sent to La Havre, France, by way of Southampton, to another "rest" camp. After twenty-four hours here, the outfit was ordered via box cars to Angers, France.

Here we met the nurses and were assigned to duty with Base Hospital No. 27 from the University of Pittsburgh. At this place, a strong at-

tempt was made to break up Unit K, but by exerting strenuous efforts we were able to keep the organization intact.

However, February 22 found Capt. F. Earl Bellinger, Capt. John W. Shuman, Lieut. Robert S. Moth, and the writer on their way to the British front. After spending two weeks on the actual front along Vimy Ridge at British Casualty Clearing stations, and the remaining time along the British lines of communication, base hospitals at Boulogne and Paris and the school at Langres, the quartette was ordered back to Tours, headquarters services of supply, where, to their complete surprise, they found Unit K in charge of Camp Hospital No. 27, having been ordered there during their absence.

Here the writer was placed in charge of surgery, Captain Shuman headed the medical side, while Captain Henninger and Lieutenant McAtee were made chiefs respectively of the eye and ear, and genito-urinary sections. Captains Bellinger and Hill became operating surgeons, and Lieutenant Fagone was put in charge of x-ray work.

Captain Johnson, having been promoted, was ordered to Dijon as bacteriologist for the Central Medical Department laboratory.

At Tours, the writer was placed in charge of an operating table at the French Hospital, where under the supervision of M. Major Ombredann and under the direction of M. Capt. M. Ledoux-Lebard, the famous roentgenologist, he removed foreign bodies from the lung.

(This was new work for the author and while he cannot agree with the radical stand of Ombredann, yet he was fascinated by the very audacity of the man, and equally astonished at the remarkable results obtained in practically all cases. It might be said, however, that these were all old cases, ten days to three weeks from the time of being wounded, and all were in good surgical condition. Anæsthetic used was ether by means of the Ombredann mask; free incision with resection of ribs if necessary.

The lung was boldly picked up with forceps, if necessary, and the foreign body rapidly approached under the direction of the fluoroscope. After removal of the foreign body, the lung was sutured, pleura cleared out and sutured without drainage, and the muscles and skin often closed leaving the drainage tube in these parts for twenty-four hours.

Little reaction was noticeable, the patient progressing rapidly to recovery. Many other interesting conditions were seen at this hospital, one of which I remember particularly. A young Frenchman with a piece of shrapnel the size of a

10 cent piece, found free by the fleuroscope, in the right auricle of the heart. The man was apparently perfectly normal in every other way, nor could one detect by auscultation, the slightest deviation from the normal in any of the heart sounds.)

The writer, after receiving the order to take command of Mobile Hospital No. 1, proceeded to Paris the same night. The next day, Lieutenant Moth and eight enlisted men from Unit K, reported to him there.

Together, we "took over" the tents, camions, x-ray and operating equipment, from the French Army at the Service de Sante, located at Neuilly, just outside the walls of Paris.

The French were slow in producing the materials, but at last everything was secured and a portion of the hospital was erected on the old race track in the Bois de Boulogne.

Gradually, by persistent efforts on the part of all concerned, Unit K was absorbed by Mobile Hospital No. 1, and when, on June 12, 1918, orders were received to proceed to Coulommiers and become part of the First Army to strike at Chateau Thierry, Mobile Hospital No. 1 was ready and fully equipped.

While in Paris, nightly air raids and "Big Bertha" only served to put more "pep" into our efforts. Some difficulty was experienced in procuring trucks, due to the fact that all Paris was in readiness to evacuate. Chateau Thierry is but forty miles from Paris.

When we arrived at Coulommiers, selected wounded were already coming in. At this point we were in close touch with Evacuation Hospital No. 7, Lieut.-Col. Wm. H. Tefft, M.C., U. S. A. in command.

The number of wounded exceeded anything any of us had anticipated, therefore, it became necessary to add more and more tables and call for many operating teams, until finally, Mobile Hospital No. 1, with the writer as chief of the surgical staff of both hospitals, controlled twenty-eight operating tables, which during our stay here of six weeks, were busy most of the time day and night.

During the six weeks, twenty-six thousand cases passed through these two institutions.

Shelling and bombing and many narrow escapes only stimulated our nurses and men to do better work without thought of food or sleep. Many obstacles and difficulties which were constantly appearing, were finally conquered by the almost superhuman efforts of our men, for it must be remembered that each man was doing the work of six. Additional help from the army

seemed impossible on account of the shortage at this time of hospital corpsmen.

While the number of wounded here exceeded anything seen later, the character of the wounds were not so severe and gas gangrene was less in evidence. We received practically all of the cases from the Belleau Woods fight, which were mostly rifle and machine gun wounds.

An exhaustive history of the organization would be out of place here, therefore, it may suffice to give a brief outline of what happened after the stand at Coulommiers.

On July 29, 1918, the organization was ordered to Chateau Thierry by truck and within thirty hours, patients were being operated at the new point. The day we left Coulommiers, 1200 wounded were lying on the ground for Evacuation Hospital No. 7 to handle.

At Chateau Thierry, the wounds were more severe, from high explosive to shrapnel. Fracture cases were evacuated by boat down the Marne River to Paris, while the remaining were distributed to hospitals in the rear.

Our position at this point was more exposed than at any other time, except perhaps at Fromereville. Shock from exposure was not so pronounced as later, due to the hot weather. An epidemic of diarrhoea, and millions of flies and bees, made this stand a most disagreeable nightmare.

Orders were received August 20 for Mobile Hospital No. 1 to move via Neufchateau to La Morlette Ambulance, a group of French huts one kilometer west and four south of Verdun. Here, patients from the Saint Mihiel drive were attended.

After the St. Mihiel drive, we were ordered to proceed under camouflage at night to Claire Chene, five kilometers south of the line, preparatory to the new Meuse Argonne drive, and September 24 found us ready for patients.

After the barrage of this frightful morning, the most horribly mutilated wounded began to arrive. A field hospital triaged the severely wounded by litter to our institution, but 100 yards distant.

Here the task of litter bearer was stupendous, because of having to carry the wounded up a steep hillside where we had been placed for protection against direct shell fire.

The weather was cold, and wet, and here we found the cases of severe shock. Numbers died in the ambulances en route from the first aid stations. Here it was, too, that we used the German prisoners as litter bearers and grave diggers, and I must say that they performed excellent service.

To go on further would be tiresome to the reader. Suffice it to say that Mobile Hospital

No. 1 followed all activities through the Chateau Thierry, St. Mihiel, and Meuse Argonne battles, making fourteen moves in all. No hospital, except the field, was ever ahead of Mobile One, and frequently these were in direct contact.

Armistice day found us at Bantheville, near Stenay, in the Argonne. We were not removed from the shell holes until Christmas Eve, 1918, when orders were received to move back to Joinville, Haute Marne, turn in all equipment, and prepare for transportation to the United States.

However, we did not leave France until late in April, 1919. We were held at Toul and Nantes, during this time, without equipment or duties of any kind, except the conduct of the organization itself.

Following are the names of some of the medical officers, heads of operating teams, who were with us during the heavy drive at Coulommiers in the Spring of 1918: Lieut-Col. Robt. T. Miller, Major A. D. Babcock, Major H. G. Berry, Major Jas. A. Sherbondy, Capt. Beth Vincent, Capt. Elliott C. Cutler, Capt. Jas. Watt, U. S. N., Major Kellogg Speed, Maj. C. G. Heyd, Capt. J. G. Yocum, Maj. C. W. Hemmington, Maj. J. B. Jamieson, Maj. Dean Lewis, Maj. W. F. Baer, Maj. J. M. Price, Jr., Capt. Paul Martin, Capt. Armitage Whitman, Capt. Carlton R. Metcalfe, Maj. H. O. Bruggeman, Capt. B. S. Chaffee, Capt. J. T. Breakey, Maj. H. E. Ross, Maj. G. D. Davis.

Later, on other fronts, many more teams reported for duty under such men as: Maj. John L. Yates, Maj. Walter B. Cannon, Capt. M. H. Deffenbaugh, Capt. Benjamin Baer, Jr., Capt. C. A. Stone, Capt. A. B. Moore, Lieut. J. M. Venable, Lieut. R. H. Bryant, Lieut. Pierre R. Pinard, Maj. Wm. L. Verdi, Maj. Henry N. Torry, Capt. E. E. Archer, Capt. Chas. E. Dowman, Capt. M. A. Blankenhorn, Lieut. Edward F. Dombrowski, Lieut. K. D. Killen, Lieut. Hugh M. Sweeney, Lieut. John B. Webster, and many others. Besides these, a large number of officers, nurses, and men were permanently attached to the organization. Maj. F. E. Bellinger, headed a team assisted by Capt. John S. McAtee, both of Council Bluffs.

Lieut. Jay DeP. Mingos, graduate of the army school of orthopaedics, was assigned to Mobile Hospital No. 1, from service in English Hospitals, as the head of a splint team, which confined its work to the care of all fractures. Capt. Bruce L. Gilfillan, of Keokuk, served with the permanently attached personnel, from a line organization of Engineers.

In the x-ray department of the hospital, such

men as Capt. Norman C. Prince of Omaha, Capt. Arthur K. Owen of Topeka, Lieut. Samuel S. Gaillard and Lieut. William H. Cade served at various times.

Capt. E. H. Falconer and Lieut. Charles H. Nammack headed teams whose duties were specially confined to the care of cases of extreme shock.

Maj. Rea P. McGee of Denver, joined the organization at Chateau Thierry and remained as the maxillo-facial surgeon of the hospital until its station at Nantes.

Some of the other officers who were temporarily attached to Mobile Hospital No. 1 in surgical capacities were: Maj. V. P. Blair, Maj. Sydney R. Burnap, P. A. Surgeon, C. G. Ross, United States Navy, Capt. C. D. Rice, Maj. H. Berry, Maj. Henry C. Berry, Lieutenant Paule Steel, Captain W. W. Burnes, Lieut. Hart Goodloe, Lieut. H. G. Fulton, Capt. A. H. Montgomery, Lieut. Fred H. Hyner, Lieut. D. W. Clark, Capt. James W. Robinson, Capt. L. D. James, Lieut. L. W. Hughes, Lieut. C. M. Reed, Lieut. G. P. Panelek, Lieut. J. M. Speed, Lieut. W. D. McGrath, Capt. C. E. Dowman, Capt. C. A. Stone, Capt. Robert C. Drane, Lieut. A. S. McCown, Lieut. Clyde F. Baccus, Capt. M. H. Deffenbaugh, Lieut. W. N. Rogers, Capt. Truman G. Schanbel, Lieut. John H. Wagner, Maj. William Stickney, Maj. S. Stewart, Lieut.-Col. E. G. Brackett, Maj. John W. Price, Maj. Chas. W. Hall, Lieut. Joseph Engelson, Capt. Leonard Crosby, Lieut. Walter C. Burket, Lieut. Thomas Scott, Lieut. W. D. McGrath, Lieut. B. W. McKenzie, Lieut. A. C. Gray, Lieut. Robert Lovelady, Capt. Jas. G. Yocum, Lieut. C. H. Moses, Lieut. G. P. Sackrider, Capt. A. P. Jones, Lieut. Jack S. Hundley, Lieut. W. B. Goddard, Capt. J. W. Roberts, Capt. J. T. Gwathmey, Capt. W. S. Middleton, Lieut. McKen Cattell, Lieut. J. B. Close, Capt. E. E. Archer, Capt. A. B. Moore, Capt. Cecil G. Morehouse, Capt. Blake F. Donaldson, Maj. C. F. Nassau, Lieut. L. D. Englerth, Capt. Quincy B. Lee, Capt. Frederick Sallender, Capt. Chas. M. Ashley, Lieut. Joseph Binder, Lieut. Floyd H. Jones, Capt. M. D. Hoyt, Capt. A. B. Hromadka, Lieut. Harry O. Pollock, Lieut. M. E. Withrow, Capt. Orlow C. Snyder, Lieut. Samuel Butler, Capt. Roy W. Hammack, who assisted with pathology.

Brief summary of conclusions received as the result of our experience with nearly 7,000 non-transportable cases operated follows:

Debridement, carefully performed, is the only method of overcoming gas gangrene.

Primary suture of extremities should be re-

served for quiet times, when the patient can be kept under constant observation for at least eighteen days.

For mobile, or frontline evacuation hospitals, debridement, wide open treatment *without* suture, with the addition of Dakin solution is best, with the idea of early transportation to the rear, for the delayed primary suture is necessary.

Heads and spines before operation stand transportation well, and should not be operated in advanced surgical units.

Perforating wounds of the chest, from rifle or machine guns, without complications, should be sent to the rear and let alone. Others should receive radical treatment, suture of lung, cleaning out pleural cavity, and suture of pleura without drainage. In advanced hospitals, foreign bodies in the lung, unless easily accessible, should be allowed to remain.

All abdominal cases should be opened if seen in the first twenty-four hours.

In joints, all foreign bodies and loose bones should be removed, synovial membrane and capsule sutured without drainage. After-treatment, should consist of early passive motion, (forty-eight hours). For infected joints, free incision, no drainage tubes, active and passive motion (constant), and patient should be allowed to walk about on crutches in a few days, if his condition permits.

Primary suture cases should not be transported for two or three weeks, except when war conditions demand, which was frequently the case with Mobile Hospital No. 1.

The Thomas splint in front-line hospitals is a great life and limb saver.

Face wounds require little or no debridement, and every effort should be made early to place parts in as nearly perfect position as possible.

In cases of shock, selected blood or citrated blood for direct transfusion, best in cases requiring fluid, NaCl solution is good. Gum salt, with Mobile Hospital No. 1, did more harm than good, and its use was discontinued. Heat, saline drinks. Comfortable fixation of fractures.

For the prevention of shock; heat, arrest of hemorrhage, hot saline drinks, rest, should be encouraged as soon after the wound has been received as possible.

The writer is convinced that our army should inaugurate a system of field bed units, equipped with more elaborated heating devices, with plenty of hot saline drinks. Under these conditions, fewer cases of inoperable shock would be seen at the advanced surgical units.

In our experiences, with only the severe non-transportable to handle, nearly all badly wounded cases, gassed also, died.

In closing, the writer wishes to state that had he had the choice of positions in the American Expeditionary Forces, he would have selected the very one he was fortunate enough to draw.

Again, he was favored in having under his command, the most wonderful set of men and women ever assembled for any duty. To the latter, and to the direct cooperation of such men as Gen. M. W. Ireland, now surgeon general of the army, Col. E. H. Wadhams, Gen. J. M. T. Finney, Col. William L. Kellar, and others, I account for the unequaled record of this Iowa organization.

Without question, when the history of this great war is written, no page will be brighter than that written of the work and indefatigable devotion of the medical man, assisted by his wonderful nurses and men of the medical department.

**DR. C. F. APPLEGATE, MT. PLEASANT, GOES
TO NORWALK STATE HOSPITAL,
NORWALK, CALIFORNIA**

Dr. C. F. Applegate, for many years superintendent of the Mount Pleasant State Hospital for the Insane and for twenty-six years associated with state hospitals in Iowa, has been elected superintendent of the Norwalk State Hospital, Norwalk, California, a short distance from Los Angeles. Dr. Applegate, during his long years of service, has held the confidence of the profession as an alienist; and his many friends, while regretting his departure from the state, are pleased to know that his new location is all that can be desired.

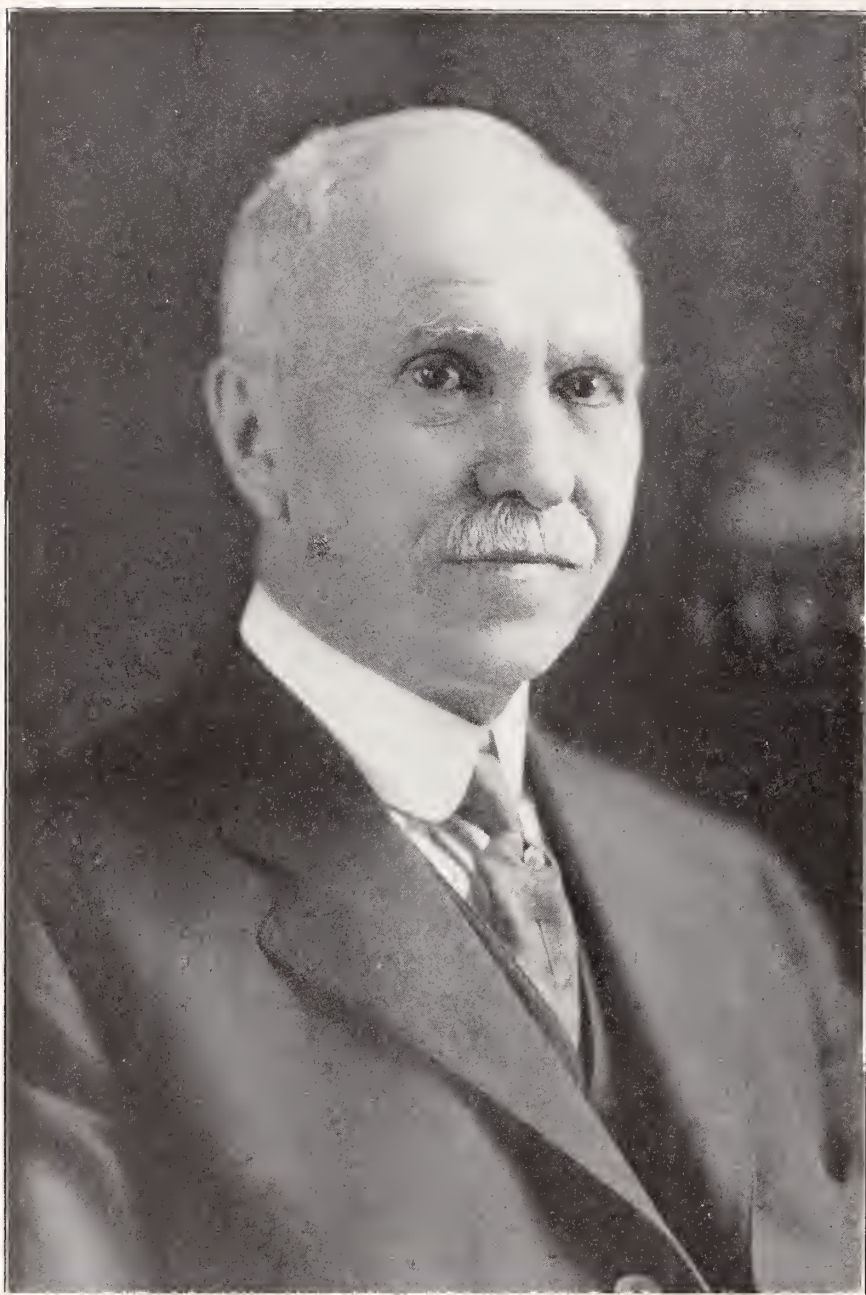
IMPORTANT NOTICE

Information is daily coming to the Secretary's office that physicians are unable to secure hotel reservation for the coming Session in May, and we are also advised that this information is current in some localities. Please disregard this. Ample hotel accommodations will be reserved for any member who wishes to attend the Session. The Des Moines hotel management has assured the local committee that all visiting physicians will be cared for by the hotels. If you have been refused, please again make application for reservation; you will secure it, but in case there is any difficulty, write or phone Dr. Thos. F. Duhigg, Equitable Building, Des Moines. Do not become alarmed but plan to come. We want 1000 physicians in attendance at this Session.



FRANK L. WILLIAMS

Captain, Medical Corps, 168th Infantry, 42nd Division
Length of service, two years and three months



JOHN M. KNOTT, M.D., Sioux City

Fifty years in the practice
(See February issue of the Journal)

The Journal of the Iowa State Medical Society

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THE DOCTOR'S ECONOMIC RELATIONSHIP

We are suggesting some things that ought to be taken into account by the medical profession. The Doctor should consider himself and should be considered like every individual citizen, as having acquired a very expensive profession for the purpose of securing a provision for himself and family for present needs and for future contingencies, his profession is his capital upon which he is entitled to reasonable returns, and it is the duty of the public to provide that society shall be so organized as to provide compensation for his services. It is not fair or just that the Doctor should be the chief contributing factor in charitable undertakings but that he should be paid for his services as the groceryman and others are paid who furnish provisions and other necessities. The Doctor should be paid for all hospital services, he should be paid for all professional services to the poor outside of hospitals, his compensation should be fair and reasonable. The provisions for medical services should be made by the public and by the doctor himself as a tax paying citizen and by generous subscriptions according to his means, to public and private enterprise for the benefit of the unfortunate. Charity medical service is often of the poorest kind and is often anything but a blessing to those it is intended to relieve—(this does not apply to hospital and dispensary service necessary for the purposes of medical education).

There is much casting about for means to re-

lieve a class of people who are not public charges but who are engaged in the industries and not able to secure adequate medical services, especially when the bread winner is disabled by reason of sickness. One of the most discussed measures is the so-called health insurance plan. The injured are now in a measure in most states provided for by workmen's compensation laws, defective enough in most instances but serve as a beginning. Industry was slow to accept liability when the employee contributed to his injury through carelessness but the principle has been accepted and amendments to the law will establish a fair relationship between the different interests involved. The interests are mutual. If the terms of compensation are not reasonable the best medical skill will not be available. If the injured employee does not secure competent medical service, his disability will be longer continued and more will be permanent, the compensation will be greater and the ultimate cost to the insured liability will be greater. The correlation between these interests is becoming more apparent; the lowest bidder is not the Doctor now desired, because he is not a good or safe doctor. In evidence of the changing sentiment of the most sensitive of the agencies (insurance companies) we are publishing a recent circular issued by the Ætna Casualty and Insurance Company, which is entitled to the consideration of the profession. It is not a contract and does not entitle the signature to the exclusive business of the company, it is only a signature of approval, it is what the committee on workmen's compensation had in mind in its report a few years ago and which was rejected. We should furthermore listen with attention to what our compensation commissioner says, for he also is an interested factor in securing the best service under the fairest conditions.

A flat refusal as a group of physicians or a medical society to accept service is far from being the best course to pursue. We should unite in securing a fair share of the benefits. Our terms of service should be as stated by the Ætna; "Such reasonable fees as prevail in the same community or similar communities, when the treatment is paid for by the persons themselves." If we follow these lines and cooperate with our commissioner just legislation will be secured and our controversies with workmen's compensation will be ended. What shall be our attitude in relation to so-called health insurance and to professional service to public charges? We are publishing a communication from Dr. E. Mac D. Stanton, chairman of committee on public information, Schenectady County Medical Society, N. Y. In

the Journal A. M. A., January 24, page 271, may be found an argument in support of Dr. Stanton's report.

Dr. Stanton after stating the principles involved in health insurance assumes a state of facts not warranted, as it seems to us, as his premises and reaches the conclusion that compulsory health insurance is a charity of the most expensive and demoralizing character, that it creates an army of administrators and clerks which would impose a vast burden on the state and would tend to destroy the self-respect and independence which characterizes the American workman. Dr. Stanton apparently loses sight of the fact that the state supplies only one-fifth of the fund while the employee and the employer contributes four-fifths. There is no expensive administration necessary; this is shown by insurance companies that carry an industrial plan of insurance and by private corporations that administer a health insurance for its employees. There are several of our largest railway companies that administer a sick benefit which is of the nature of a health insurance, the employees being assessed from their pay a certain per cent of their wages. Dr. Stanton himself calls attention to "sickness policies" offered by the General Electric Company of Schenectady which he applauds in a most generous way. These are a few instances in which private corporations and companies have inaugurated sickness benefits for their employes and the number is constantly increasing for the reason that it is not only a generous thing to do, but it is also a sound business proposition. These benefits include medical care and attention that lessens the period of sickness disability and by sanitary supervision lessens the amount of sickness and increases the efficiency of the workmen; to this might be added a system of examination records which would lessen the number of misfits by placing workmen in positions better suited to their physical condition.

The position of the workman who is forced to meet the expenses of a prolonged sickness without help is deplorable and if the sickness falls upon the breadwinner the entire family suffers a serious deprivation and bills must remain unpaid perhaps indefinitely. In addition there are many remediable cases of medical and surgical diseases which might be cured by proper treatment and thereby increase the earning power of the individual, which are neglected. The benefits to be derived from sickness insurance furnished by the supervising care of these wide visioned business organizations are admitted, but unfortunately there are a large number of working men and

women less fortunately placed. There are many small institutions that are employers of labor which cannot furnish sickness insurance to its employees and if able are unwilling to do so, therefore a very large proportion of employees must take care of themselves unless the state can provide for them. We do not mean that this shall be a charity furnished by the state, but an arrangement by which the workmen and his employer may be required to contribute a sufficient sum, as is provided for in the "standard" health insurance bills to insure certain sickness benefits equivalent to the volunteer act of the General Electric. The man has with the assistance of his employer bought his insurance and has asked only that the state administer his insurance for him. He has surrendered none of his rights as an American, he employs his own doctor and pays his bill out of his own money, he will probably have used some of his neighbor's money to pay his sickness bills but the well man will not object. He had rather pay a little for his neighbor than collect his own sickness money. Dr. Stanton will recall the fact that we established a cooperative sickness insurance at the college where he graduated, and in which his father is now a distinguished professor, more than thirty-five years ago. We saw young men enter college with just money enough to pay one year's expenses, were taken sick and after their expenses were paid, were obliged to give up college work for a year and perhaps permanently. Then this cooperative insurance was adopted, each student paid a small definite sickness fee, this created a fund from which sickness bills were paid and the student could continue his course. This was compulsory health insurance, the student paid for his sickness with the help of his fellow students without burdensome loss to themselves. No one complained, no one surrendered his American independence. Years later the contributions were made voluntary with a material decline in the efficiency of the service.

We are not advocating any particular form of health insurance. We are only advocating the principle which must sooner or later be adopted. We do not believe that we shall advance the cause of health insurance by false premises but rather that we shall join in some plan to meet the burdensome expenses of sickness. Let us take an active and important part in formulating constructive legislation including an efficient and well paid medical service.

We are calling attention to resolutions recently adopted by the Scott County Medical Society re-

lating to the attitude of the medical profession to the general public.

The position occupied by the medical practitioner has been a peculiar one. This is partly due to the manner of his evolution; from priestcraft as a medical practitioner and from the position of a barber as a surgeon. Scarcely more than a hundred years ago the most important function of the surgeon in the German Army was to shave the officers and in a certain sense, he was only a servant to administer physical comfort to a superior class. As necessity grew, medical practitioners were in demand and the inheritance of priestcraft gradually disappeared, but sentiment persisted, even to this day, and the Doctor is accepted as a public servant with different duties and obligations than other people.

There appears now a tendency to impose new burdens, which will place the Doctor in an unenviable position and it is high time that the rank and file in the profession take active steps to perform their part as a profession and as business men. The traditions of the medical profession and their education are all in the direction of an enlightened public service. In foreign countries, where tradition has a stronger hold than with us, there was, just prior to the war, a striking disposition to place the medical men in a position of public service without consulting them. The war demonstrated more than anything, the important relationship of the medical profession to the public and a great activity has developed in Great Britain, both in the medical and lay press, to bring about a better condition as to public health and medical education; a much greater activity than on this side of the Atlantic. We have previously observed that the lay press in this country has been almost entirely devoted to political and commercial activities and very naturally left each class to watch its own interests. Unfortunately for us, we have been indifferent to class interests and have waited for somebody to do for us what we should do for ourselves. We have been restless, we have felt that something was wrong, but have not exerted ourselves to find out what it was.

At a recent meeting of the Scott County Medical Society, a committee was formed to study the situation and to formulate some course of action.

It is admitted that economic conditions demand certain changes that will seriously involve the medical profession and that we cannot refuse to take an important part in formulating the changes that are apparent. The changes will come in the form of workmen's compensation, health insurance and a clinical service for public charges.

The two interests to be financially benefited, are the industries and the workmen's organizations, with incidental benefit to the general public. The industries and the public will gain in a better and more economical adjustment of injury claims; The industries and the workmen will gain through a more efficient service, through better health conditions and shorter periods of sickness.

The agency through which this may be accomplished is the medical profession. That the desired results may be accomplished, the best medical and surgical skill must be secured. To secure this, the service must be attractive both as to compensation and as to conditions, and here our duty becomes manifest. A short sighted policy in the direction of immediate economy will be the providing of a service of the cheapest character, based on low fees or small compensation, this we are familiar with under the farming out of the poor practice to the lowest bidder, which is still the practice in the more backward communities. It is true that in communities favored with a progressive medical profession, a better arrangement exists and where all classes are benefited. The duty of the medical profession in all these several proposals; workmen's compensation laws, should be so amended as to provide a reasonable compensation for surgical services; primarily for the purpose of securing for the industries, competent and adequate services to the injured employee. This will be far better for the injured man and more economical to the industry in the end. It is safe to say that the better qualified and the more skillful surgeons will decline this work, in fact it is their duty to do so. No reason can be furnished to show why skillful surgeons should contribute to the profit of industrial concerns, or transportation companies, for a less fee than is charged to private patients of the same class. Furthermore, low fee service tends to lower the standards of medical practice, both morally and intellectually. The same is true in relation to health insurance. If such laws are framed the medical profession should not be the agency for the profit of private insurance companies as it was so long in England, no more than in most of the states operating under workmen's compensation at the present time.

In regard to the medical and surgical care of charity cases under our poor laws, legislation should be so framed as to relieve the disgraceful condition now existing in many communities and relieve the medical profession from gratuitous service. There is no more reason why doctors should give free service than the grocery man or the taxi-cab driver. The doctor is a taxpayer

and he should through the payment of taxes provide for the care of the poor as every other citizen and if he renders service, he should be paid as is the grocer or the butcher.

This condition should be remedied not by refusing service, but by an active participation in public matters not alone as an individual but collectively through his medical organizations and through the medical press.

We would suggest that the county medical societies adopt the policy of the Scott County Medical Society and instruct the delegates to the State Medical Society to bring this matter before the annual meeting. Let us not content ourselves with protests and refusals to render service or obstructing legislation, but by constructive efforts to secure laws that will be fair and just to all parties concerned. Let us do away with free service and nominal fees, and adopt a self-respecting platform. Let us not content ourselves with meeting together and raising fees to meet the "high cost of living," but rather adopt a policy of a constructive nature, not of sentiment, but a policy that will appeal to the business sense of the community and be no longer the laughing-stock of the public.

There was a time when sentiment controlled, and it should now as far as possible, consistent with efficient service. We must exercise a watchful care that laws be framed and commissions formed with a fair representation of medical men. We should not neglect to participate in these activities and hope to protect our interests by refusing to accept what the law may provide, for this will be fatal to us.

MEDICAL CENTERS IN THE UNITED STATES

Considerable activity is being manifested in developing medical centers in this country to supply the needs of ambitious young men who formerly found it necessary to resort to the great universities of Europe to perfect themselves in certain lines of professional work. "The Medical Record" calls attention to the efforts being made in New York:

A concerted effort is being made to develop in New York a medical center similar to those of Berlin and Vienna before the war. An organization to be known as the New York Association for the Advancement of Medical Education and Medical Science has made an application for incorporation to the office of the secretary of state at Albany. A constitution and by-laws have been adopted setting forth the objects of the association. The new organization has elected the following officers: Presi-

dent, Dr. Wendell C. Phillips; first vice-president, Dr. George David Stewart; second vice-president, Dr. Glentworth R. Butler; secretary, Dr. Haven Emerson; treasurer, Dr. Arthur F. Chase; trustees, Dr. Charles H. Peck, Dr. William Francis Campbell, Dr. John A. Hartwell, Dr. Frederick Tilney, Dr. Alexander Miller, and Dr. George W. Kosmak.

FOREIGN GUESTS VISITING THE UNITED STATES COMING TO IOWA

At the invitation of members of the National Board of Medical Examiners who visited England and France during 1919, several prominent physicians from abroad will visit America and make a tour of the country and attend the annual meeting of the American Medical Association in New Orleans. These guests are: Sir Humphrey D. Rolleston, F.R.C.P. (London), appointed by the president of the Royal College of Physicians of London. Colonel H. J. Waring, F.R.C.S. (London), appointed by the president of the Royal College of Surgeons of England. Representing the Conjoint Examining Board of England. Dr. Norman Walker, F.R.C.P., Edinburgh, representing the Triple Qualification Board of Scotland. Prof. G. Roussy, physician, and Professor Gregoire, surgeon, appointed by the dean of the faculty of medicine, University of Paris.

The commission will be joined in this country by Prof. J. C. Connell, Kingston, Ontario, president of the Medical Council of the Dominion of Canada.

After attending the New Orleans meeting the commission will visit St. Louis, May 2 and 3, and on Tuesday morning, May 4, will breakfast in Des Moines, leaving at eleven o'clock for Iowa City, where the afternoon and evening will be spent in visiting the State University Medical School. Several members of the National Board will accompany the foreign guests including Admiral W. C. Braisted, surgeon general of the United States Navy, and surgeon general M. W. Ireland, United States Army. After leaving Iowa City the tour includes Minneapolis, Rochester, Chicago, Cincinnati, Cleveland, Ann Arbor, Niagara Falls, Boston, New York, Baltimore, and at the close attending a national board examination in Philadelphia. The commission sails for Europe on May 29.

Dr. Walter L. Bierring is a member of the committee to meet the foreign guests upon arrival in New York, April 18, and will accompany them during the greater part of the tour in this country.

PELVIC CANCER TREATED BY RADIUM

Of eighty cases of pelvic cancer treated, sixty-two were uterine, ten rectal, and eight vesical, and the results show that the prognosis is best in vesical, almost equally favorable in uterine and vaginal and not so favorable, even poor, in rectal carcinoma. Eleven clinical cures were obtained in thirty-five inoperable uterine, none in six inoperable rectal, and

three in four inoperable vesical cancers. The term clinical cure implies a complete subjective and objective cure of the cancer as far as it can be determined by an exact palpation and a microscopic examination. Fourteen clinical cures were obtained in forty-five inoperable pelvic cancers, i. e., 31.1 per cent. This percentage would have been much more favorable if hopeless cases had not been included, since not a single case was refused treatment, in fact, seven of these cases were in a far-advanced and terminal stage. Of the nineteen recurrent carcinomata treated, fifteen were uterine, three were vesical, and one was rectal. Four of the uterine cancers are clinically well; one vesical cancer was in a terminal stage when referred for treatment, one was clinically cured, and one has remained refractory to treatment; the rectal cancer was in an advanced stage when treatment was begun, and it has remained refractory. Summarizing these cases, we find that five of the nineteen recurrent cases (25.8 per cent), are clinically cured, or, if we subtract the five advanced and hopeless cases, the percentage of clinical cures would be 35.7. The prognosis of radium treatment in recurrent cancers is not as good as in the inoperable cancers.—Progressive Medicine.

PRIVATE INSURANCE COMPANIES' METHODS AS BAD OR WORSE THAN A COMPULSORY HEALTH INSURANCE SYSTEM

Private insurance companies are spending untold thousands in money trying to prevent the adoption of compulsory health insurance laws in this country. In their work they have had to rely most of all on the medical profession to help prevent the inauguration of this vicious system.—Illinois Medical Journal, September, 1919.

PHYSICIANS AS UNPAID COLLECTION AGENTS

There seems no limit to the number of agencies which desire to assist the doctor in his efforts to get along, from remarkably profitable investments to collecting bills which he has long given up as hopeless. "The Journal of the American Medical Association," August 23, publishes an instance well worth noting:

Physicians in different parts of the country have received letters addressed, not to them personally, but to them as "Town Physician" of the city or village in which they live. These letters, typewritten and obviously "form letters," read:

Dear Sir:—Recently I wrote John Doe of your city but my letter was returned to me by the post-office undelivered which leads me to believe that the family has moved to some other address without letting me know. If it is not asking too much of you, I assure you it would be a great favor if you could

advise or find out for me without putting yourself to too much trouble where a letter can reach this party. It is a matter of considerable importance.

Thanking you for your kindness and assuring you of my appreciation, I remain.

Yours very truly,

Helen Taylor.

The name of the person inquired about, of course, varied; so, may it be said, did the name of the person from whom the letter purported to come. Instead of being a letter from "Helen Taylor" it might be from "W. J. Mitchell" or from some other party, although the handwriting of the signatures was suspiciously similar. In every case a stamped envelope directed, as the case might be, to "Helen Taylor," "W. J. Mitchell," etc., accompanied the request for information. In every instance, too, this envelope was addressed to 146 W. Fortieth street, Chicago. The Journal's investigators found that there is no 146 W. Fortieth street, and, in fact, could not be, as this address would come at a place that is occupied by railroad tracks. It became obvious, therefore, that these various form letters, evidently from a common source but sent out under different names, were being delivered through the connivance of a post-office employee. The Journal laid the matter before the chief inspector of the Post-office Department at Washington with a request for information. In due time the inspector reported that:

It was ascertained that the communications in question were form letters sent out by the Hartman Co. of Chicago, Illinois, with a view to locating persons who owed them accounts.

The concern referred to in the inspector's report is the Hartman Furniture and Carpet Company, which sells house furnishings on the installment plan. Its advertising slogan is "Let Hartman Feather Your Nest." So long as physicians remain good-natured and "easy," the Hartman concern is presumably not going to let a chance to feather its own nest go by. Why pay a collection agent when "Town Physicians" are so accommodating? We might add that the most recent letter of this sort that we have seen was addressed to "Minister of Gospel or Town Physician." Religious papers please copy!—Journal A. M. A.

ANTI-VACCINATIONIST IN POLAND

American Red Cross doctors in charge of the fight against cholera in Poland, when that disease made its appearance in Kowel last January, had a great deal of difficulty in persuading the people to submit to vaccination. Their reluctance amounted at first almost to actual rebellion, and many of them frankly preferred death.

The secret of this popular antagonism dates back a few years to a time under the Russian regime, when a similar cholera scare alarmed the community. At that time the Russian authorities, determining

on vaccination, declared martial law and began forcibly to vaccinate the people. These harsh methods not only aroused popular anger, but were in many cases followed by tragic consequences due to improper sterilization. Many cases of serious infection, loss of limbs, and even of life, resulted. In the end the people rose and threw the Russian military doctor into the town well.

The Americans used different means. They started a local educational campaign, using printed posters, and got all the civil and military employees to volunteer to be inoculated. Plenty of vaccine had been brought from Red Cross headquarters at Bialystok, and very soon the popular mind was opened to the dangers of the epidemic and the townspeople began coming in, by twos and threes, and then in crowds.

As a result, the threatened epidemic lasted only three days, and only fifteen lives were lost.

PERSONALITY GROWTH IN PART-TIME SPEECH TEACHERS

Before the kindergarten section meeting of the National Society for the Study and Correction of Speech Disorder, Walter B. Swift of Boston read a paper on the growth in Personality of the Teachers of the Cleveland Public Schools who were doing speech correction. He spoke in part as follows:

Summary—All the speech teachers in Cleveland have shown a remarkable growth in their personalities since they have taken up speech correction. They have become better able to manage their grade classes. They have learned to understand human nature in a broader and finer way, they have become more kindly disposed and sympathetic toward little children.

They have grown in their powers of perception, they have made more efficient their methods of teaching and they have increased and improved their own power of thinking. All the phases in the growth of their personality have resulted from a year's work in speech correction.

RESOLUTIONS ADOPTED BY THE SCOTT COUNTY MEDICAL SOCIETY

1. Whereas, Legislation which is absolutely detrimental to the medical profession has been enacted in various states of the Union, and

2. Whereas, Further legislation is proposed which will be of greater detriment to the profession, and

3. Whereas, Economic conditions are forcing the profession to the action to remedy the evil legislation and to safeguard themselves in the future;

Therefore Be it Resolved, That it be the sense of the Scott County Medical Society that the Iowa State Medical Society proceed immediately to organize the various county medical societies for action on economic problems, and further be it resolved that our delegates to the State Society be instructed to urge immediate action.

Resolved, That the secretary of the Scott County Medical Society send a copy of these resolutions to the secretary of the Iowa State Society and a copy to each of the secretaries of the various county medical societies and instruct its delegates to vote for this proposition at the state meeting.

H. M. Decker,
F. H. Lamb,
A. P. Donahue,
C. L. Barewald,
Committee.

MEMORANDUM REGARDING SURGICAL FEES

For Services Rendered to Injured Persons Covered
by Policies of the Aetna Life Insurance Com-
pany, Hartford, Conn.

The company will expect to pay the surgeon for services performed by him such reasonable fees as prevail in the same community or similar communities for the treatment of injured persons of like standard of living when such treatment is paid for by the persons themselves, having in mind the following modifying circumstances.

A. The doctor's bills will be paid promptly and he will have no uncollectable accounts.

B. The surgeon's fee is often not the only medical expense incurred in the treatment of a particular case, but the facilities of hospitals and the assistance of specialists and nurses for purposes of diagnosis or treatment must also be provided and paid for in cases where such assistance is necessary.

C. There is a limit to the burden of cost which industry is able to bear in connection with these cases.

D. Rates for insurance covering the hazard of industrial injuries are based upon the limitations of workmen's compensation laws, and do not contemplate payment of medical charges except in accordance with those limitations.

The company will expect the cooperation of the attending surgeon in minimizing the expense of the whole case so far as efficient treatment permits, by making use of the services of a trained nurse, when available, to apply simple dressings and by avoiding unnecessary multiplication or extension of treatments.

The company will further expect the attending surgeon from time to time to furnish its adjusters, or other representatives, with written reports setting forth the history, status or details of treatment of particular cases so that accurate and complete knowledge of the surgical and other related facts may be available in connection with the disposition of the injured person's claim.

In event the surgeon is in any case uncertain as to what his particular fee in that case should be, the company will in no such instance undertake the responsibility of making the surgeon's bill for him, but

will nevertheless undertake upon request, to furnish him with such information as it can gather from other similar communities and circumstances regarding usual rates of fees in such cases.

I except the foregoing memorandum for guidance in connection with my treatment of cases covered by policies of the Eetna Life Insurance Company.

-----192-----
Place Date Surgeon

Note: This memorandum supercedes all fee schedules previously issued for guidance of surgeons in connection with the treatment of cases covered under employer's or public liability or workmen's compensation policies.—Form-7007.

The argument for compulsory health insurance is based upon the assumption that the insurance method is a fairly efficient method of distributing sickness costs over large groups of individuals. This presupposes that the details of administration can be so arranged that the waste due to overhead expenses, the necessity of carrying a large reserve, and the waste due to overemphasized illness and malingering does not consume a major portion of the funds before any moneys can go to the actual relief of real cases of sickness.

So far in the world's history the above mentioned requirements have never been met. The available data shows that a very large proportion of the funds is wasted.

A report recently issued by the Public Utilities Mutual insuring organization—the Utilities Mutual of New York State—shows that from July 1, 1914 to December 31, 1918 it cost the fourteen largest self-insuring groups in New York State \$2,178,000 to distribute \$5,353,000 or 41½ cents to distribute \$1 in benefits under the relatively simple conditions encountered in the compensation work. It also costs the State of New York an additional 4½ cents to supervise the spending of each dollar. This means that in the State of New York it actually costs about 46 cents to distribute \$1 of benefits, including medical services, under the compensation law.

The compensation problem is relatively very simple. The costs above mentioned are paid by business concerns spending their own money. What would the overhead and collateral waste be under a politically controlled system of compulsory health insurance, attempting to cover even such minor illnesses as common colds?

The medical profession knows that the financial resources available for the prevention and treatment of disease are never any too great. Can the medical profession afford to permit the consumption of a scheme in which nearly one-half of the available resources will be wasted before a single penny can go to the care of cases of real sickness?—E. Mac D. Stanton, Chairman of Committee on Public Information, Schenectady County Medical Society.

SOCIETY PROCEEDINGS

Crawford County Medical Society

At a recent meeting of the Crawford County Medical Society, Dr. H. D. Jones of Schleswig was elected president and Dr. Meehan of Denison secretary. Drs. Yoder, Rowe and Wilkerson were elected members of the society. After the meeting a banquet was held at the Hotel Denison.

Hardin County Medical Society

Hardin County Medical Society met in Eldora, Tuesday evening, January 27. On account of sickness Dr. Ely of Des Moines and Dr. Rowntree of Waterloo were unable to be present. Dr. Abbott of the Abbott Laboratories, Chicago, presented films of the technic used by the University of Pennsylvania Hospital and in the treatment of infections, and in Cook County Hospital in the treatment of burns.

A biographical sketch and appreciation of the late Dr. N. C. Morse was presented.

Officers elected—President, Dr. Willard Caldwell of Steamboat Rock; vice-president, Dr. W. H. Van Tiger; treasurer, Dr. C. M. Wray; secretary, Dr. W. E. Marsh.

Ida County Medical Society

At a recent meeting of the Ida County Medical Society the old officers were re-elected: Dr. G. C. Moorhead, Ida Grove, president; Dr. C. S. Stoakes, Battle Creek, secretary and treasurer.

Jasper County Medical Society

The Jasper County Medical Society held a meeting in the library Tuesday evening, January 20, and elected officers for the coming year. The officers are: President, Dr. F. L. Smith, Newton; vice-president, Dr. C. R. VanVoorhis, Prairie City; secretary and treasurer, Dr. C. E. Broderick, Newton.

Mitchell County Medical Society

The Mitchell County Medical Society was entertained at the home of Dr. C. C. Wiggins in Osage. The wives of the doctors were invited and a number from over the county were present to enjoy the mingling together in a social way.

Polk County Medical Society

Polk County Medical Society met at the Chamberlain Hotel, Des Moines, Tuesday, January 27. Dinner at 6:00 P. M., meeting 7:00 P. M., C. G. Smith, M.D., president, presiding. T. F. Duhigg, secretary.

The program consisted of An Appreciation of Sir William Osler, by Dr. Walter L. Bierring and a paper, Polycythemia, with Report of Two Cases, by Dr. Tom B. Throckmorton.

Dr. Bierring had the rare opportunity of visiting Sir William only a few months before the latter's death in company with a number of other distinguished medical gentlemen interested in medical ed-

ucation. Dr. Bierring drew out some of the most important and interesting incidents in Sir William's professional life and dwelt on points which made Dr. Osler one of the most distinguished physicians of his time. The fact that Osler had finished his professional career and was only a few months from his death made the occasion one of profound interest.

Dr. Throckmorton presented a paper of much interest in a manner characteristic of his thorough study of difficult and obscure subjects. One point to be commended in Dr. Throckmorton's communications is the clear English in which his views are expressed. It is unfortunate that medical men even of good education are less careful than they should be in selecting the best English in preparing their papers. After the close of the discussion some matters of business were brought up and considered.

Scott County Medical Society

The total number of members of the Scott County Medical Society during the year 1919 was seventy-six, according to the annual report submitted by Dr. Robert E. Jameson, secretary. There are two honorary members. Six new members were admitted last year. Ten regular meetings of the society were held during the year and two banquets were given. Eight clinical cases were presented to the association and six physicians gave addresses at various meetings.

Woodbury County Medical Society

The Woodbury County Medical Society held its regular meeting at the Elk's Club, Sioux City, March 23, with Vice-President Frederick Roost, presiding.

The following program was given:

Outline of the work done at Yale in the last two years with reference to Intestinal Flora by Mr. C. J. T. Doryland.

Encephalitis Lethargica—Dr. E. M. Williams.

Mastoiditis—F. L. Secoy.

A very interesting discussion of the papers was held.

Dr. Chas. E. Magoun, Sioux City was elected secretary, following the resignation of Dr. L. D. Cheney secretary, who is removing to Los Angeles.

Three new members were received; Drs. A. H. Hendrickson, J. H. Darey and Emma M. Ackerman, all of Sioux City. L. D. C.

Ft. Madison Medical Society

The monthly meeting of the Fort Madison Medical Society was postponed by the members on account of the flu epidemic which is so prevalent that no time is afforded by the society to meet. Unless conditions improve before the next regular meeting, there is little likelihood that the meeting will be held at that time.

Many important phases of the epidemic will be taken up at the next meeting for discussion, it is thought, and preventative measures suggested. The last meeting of the society was held in January.

Iowa Clinical Medical Society

The Iowa Clinical Medical Society met at Davenport, Iowa, on March 13, 1920. Clinics were held at Mercy and St. Luke's Hospital of that city. A very interesting program had been prepared, Drs. Rendleman, Decker and Lamb of Davenport and Dr. Murray of Cedar Rapids presenting the following cases.

Cases illustrating the value of Non-Specific Protein Therapy in Arthritis.

A Case of Tumor of the Ascending Colon.

A Case of Tumor in the Right Hypochondriac Region.

A Case of Congenital Heart Disease.

A Case of Myxedema.

Three Cases of Anemia, including one of rapidly fatal Aplastic Anemia.

Demonstration of organs from an autopsy of a case of Pick's syndrome.

Demonstration and discussion of the value of parallel Wassermann tests.

A case of foreign body (hair ball) in the stomach, with flourescopic demonstration.

Demonstration of plates from a case of gastric ulcer, and from several cases of empyema in children.

After the clinical program a business meeting was held, and a discussion of the program followed. All the visiting members voted it a very interesting and profitable meeting.

The next meeting will be held at Des Moines just prior to the state meeting.

J. S. Weingart, Sec'y.

Keokuk Physicians Club

The Keokuk Physicians Club met February 10 in the private dining room of the Y. W. C. A. for dinner and regular meeting afterwards. Dr. Frank M. Fuller read a paper on influenza which was discussed by the following physicians later in the evening: Doctors E. G. Wollenweber, Robert M. Lapsley, O. T. Clark, C. R. Armentrout.

Dr. Fuller affirmed what has been said before concerning the influenza epidemic, "that it is an aftermath of the disease last year and that the epidemic this year is not so severe as last year. It will gradually wear itself out as it has in former times," Dr. Fuller told the club.

Dr. James Herbert Mitchell of the department of dermatology and venereal diseases of Rush Medical College, Chicago, will appear on the program at the next meeting of the Physicians Club which will occur in March. Plans are being made to have an out of town speaker for each subsequent meeting of the club and the members are hoping to have Dr. Walter L. Bierring of Des Moines here sometime in the spring or summer. Dr. P. E. Hanes was voted into the club as a new member.

Medical authorities interested in preventing the spread of tuberculosis in Iowa will meet at Rock Rapids, February 12 and 13. Dr. L. L. Corcoran, president of the Northwest Medical Society, and

Sixty-ninth Annual Session

IOWA STATE MEDICAL SOCIETY

Des Moines, May 12, 13, 14

The Arrangement Committee has the assurance of hotel managers that every means will be taken to secure accommodations for visiting physicians during the State Society meeting. It is very essential when writing for reservations to state whether more than one wishes room, and whether accompanied by wife or other member of the family.

When writing for reservations, be sure to request the hotel manager to refer your letter to Dr. Thos. F. Duhigg, Equitable Bldg., Des Moines, in case room is not available in the hotel to which you letter is addressed. Dr. Duhigg will see that reservations are secured somewhere, and you will be so notified by Dr. Duhigg.

In case of trouble, write or call Dr. Thos. F. Duhigg, Equitable Bldg., Des Moines.

The following is a partial list of hotels to which you may write.

Fort Des Moines	Savery III	Chamberlain	Kirkwood	Franklin	Brown	Randolph
Elliott	Cargill	Wellington	Victoria	Lloyd	Foster	

Dr. Albert Byefield of Iowa City will be among the speakers. Dr. A. E. Kepford, state lecturer on tuberculosis, will also attend.

MEDICAL NEWS

The old Dr. Potter home, 1135 Pleasant street, has been purchased by the Iowa Methodist Hospital, Des Moines, for hospital purposes.

The will of Judge Nathaniel French, made public yesterday, shows that the judge was sincerely interested in several of the important institutions of Davenport. While he was living he had been a liberal giver at all times to public activities. In his will he provided for the distribution of \$35,000 in public gifts—\$10,000 to Friendly house, \$10,000 to St. Luke's Hospital, \$10,000 to the Ladies' Industrial Relief Society, \$5,000 to the Visiting Nurse Association. It will be noted that each of these institutions is the kind that does good for others—performing service very similar to that which the judge always took a keen interest in.

Surgeons have a plan for estimating the charges to make for an operation that is worthy of attention. Dr. Elmer Jenkinson of Sioux City was sustained by Judge W. G. Sears in his claim for \$250 charges for operating on the late Charles Toothaker, who was murdered some time ago in Sioux City. Dr. Schoot

testified in behalf of Dr. Jenkinson and explained that a doctor is, in a way, risking his professional reputation when he operates on or treats a wealthy or well known patient whose progress toward recovery is noted by the newspapers and watched by the public. Hence he is obliged to consider this risk in making out his bill.

PERSONAL MENTION

Dr. E. F. Rembo has located in Stanhope for the practice of medicine. Dr. Rembo is a graduate of Rush Medical College; had two years' service in the United States Army and a post graduate course in the University of Edinburg, Scotland.

Dr. G. M. Crabb of Deer Lodge, Montana, has become a member of the Park Hospital Association at Mason City. Dr. Crabb is a graduate of Grinnell College and received his medical degree from Rush Medical College, Chicago. It is announced that a nurses home will be added to Park Hospital.

Dr. E. R. Earwood has located in Fort Dodge and has opened an office for the practice of medicine.

"Dr. David Fairchild, who says the cemetery should be made a more cheerful place, may be right about it, but he'll find that a lot of folks will simply refuse to go there until they have to," comments the Des Moines Register, editorially. The two Clinton doctors who bear that name thank the Register cordially for the free advertising, but they deny author-

ship of the statement.—Clinton Herald.

The above Dr. David Fairchild is associate editor of the National Geographic Magazine and a distant relative of the Clinton Drs. Fairchild.

Dr. L. K. Fenlon, graduate of Iowa University College of Pharmacy, 1914 and M.D., 1919, has located in Clinton for the practice of medicine.

R. L. Fenlon, graduate of Iowa University College of Pharmacy 1915, M.D., 1919, has been appointed chemist at the University Hospital.

Dr. Clifford W. Losh has opened offices in Des Moines, practice limited to urology.

Dr. E. S. Heilman of Ida Grove was recently operated upon at the University Hospital, Iowa City.

Dr. Harvey A. Johnson, a graduate of the Medical Department, Creighton University, has located in Atlantic.

Drs. G. E. Decker and H. M. Decker announce that their association in the firm of Decker Brothers has been dissolved. Dr. G. E. Decker will limit his practice to general surgery and consultation; Dr. H. M. Decker will practice radiological diagnosis and treatment.

Dr. John L. Billingsley has formed a partnership with Dr. F. L. Smith, Newton. Dr. Billingsley was just recently discharged from the service. Prior to entering the service Dr. Billingsley practiced in Monroe.

Dr. A. W. Crary of Boone has sold his business to Dr. C. A. Noland, who recently came to this city from Ogden. Dr. Crary will leave Boone and will go to California, where he will make his home in the future and establish himself as a specialist in the treatment of eye, ear, nose and throat.

Dr. H. B. Young of Burlington has gone to Monrovia, California, to visit his daughter, Mrs. William Coleman, and at the same time to join Mrs. Young who has been spending the winter there.

Dr. Jeannette Throckmorton of Des Moines was one of the principal speakers at a recent meeting of the North Dakota Federation of Women's Clubs, representing Iowa public health service. In commenting on Dr. Throckmorton's address, the General Federation magazine says: "Dr. Throckmorton came to Dakota to talk to the women through the courtesy of the Federal Health Bureau and North Dakota Bureau for venereal disease, and spoke appealingly on what the government wants the club women to do, in aiding the campaign for better health. She is particularly fitted to talk to such a body of women, for she offends no one and speaks in a simple, direct, yet finished manner. She makes any woman feel that it is her duty to get back of the government in this campaign."

Dr. T. M. Throckmorton had the misfortune to fall on Thursday night as he was leaving the Brewer home, where he had made a professional call, breaking his hip. His son, Dr. T. B. Throckmorton of Des Moines, helped to set the injured member. He is reported as getting along as well as could be expected.—Chariton Herald-Patriot, February 5.

Dr. Thomas S. Waud of Cedar Rapids has an-

nounced his candidacy for the position of railroad commissioner, Dr. Waud is a former resident of Fort Dodge, having been a train dispatcher on the Illinois Central in 1889.

Dr. J. W. Rowntree, who has been critically ill for several days, was slightly improved last night, but was still in a very critical condition. Another consultation of physicians was held yesterday and some hope is held out for Dr. Rowntree's recovery. Pneumonia antitoxin was administered yesterday. Dr. Harold Rowntree, Toronto, Canada, a brother of the Waterloo physician, was expected here during the night.—Waterloo Times, February 5.

Dr. F. J. Swift of Maquoketa, has announced his candidacy for state representative on the Democratic ticket. Dr. Swift is well known throughout the county having been a practicing physician first in Baldwin, later in Sabula and for the past number of years in Maquoketa. He entered the military service at the outbreak of the war in 1917, and after many months' service in France returned with the rank of a major. He was recently elected as post commander of the local post of the American Legion. There are rumors of other candidates for the office, but as yet none has come out in the open.

The Sisters of Mercy of St. Joseph's Mercy Hospital honored the physicians and surgeons of Clinton and Lyons on Wednesday evening of last week when they tendered them a six course banquet. Following the banquet a business session was held, Dr. J. C. Langan, acting as temporary chairman, and a hospital staff with the following officers, was organized: Honorary president, Dr. D. S. Fairchild; president, Dr. F. M. Keefe; vice-president, Dr. George Hofstetter; secretary-treasurer, Dr. Kurt Jaenicke. The other doctors present at the meeting were: M. A. Coveny, H. A. White, T. B. Charlton, H. E. Martin, H. F. Kaack, F. A. Hohenschuh, John Mansfield, F. B. Morgan, J. A. Langan, and A. T. Miller.

Dr. R. R. Kulp expects to obtain his discharge from the regular army and resume his practice of medicine in Davenport about March 1, according to word received by friends today. Dr. Kulp entered the military service with the rank of a captain in the medical corps in 1917. He spent several months overseas and after his return was assigned to duty at Camp Dodge. He was recently transferred to Fort Snelling, Minnesota, for temporary duty and expects to obtain his discharge from the service there. Captain Kulp was among the first Davenport physicians to enter the service and is among the last to return to civilian life.

Of the allies, the United States has been the most humane to Austria, seconded closely by the Italians. This is the opinion of Mrs. Caroline Steindler, former Des Moines woman, who is visiting in the city with friends, before going to Iowa City to make her home with her son, Dr. Otto Steindler. Mrs. Steindler, while making a four months' tour of the schools of England, France, Germany and Austria, in the study of fine arts, reached Vienna just previous to the outbreak of the war. She was interned and has

just succeeded in getting a passport back to her home in America. Mrs. Steindler was not allowed to bring back her jewels which she had placed in a bank at Vienna.

Dr. J. N. McCoy of Corydon and postmaster, is being named by his friends as one of the district delegates to the National Democratic convention at San Francisco. The Leader is for him. There is no honor too big for Dr. J. N. McCoy, and as a leader of his party, he is deserving. There are no better men than the man who presides over the postal establishment at Corydon.—Chariton Leader.

Dr. H. L. Wyatt, who has been in the navy for over two years and a half and who was discharged last October, has returned to Griswold and will engage in the general practice of medicine in Griswold. He will be associated with Dr. C. R. Jones and they will open an office in the building formerly occupied by Dr. J. A. Raabe, opposite the Fullerton lumber yard.

Major D. H. Pelletier, a doctor of medicine who practiced for years at New Hartford and later moved to Cedar Falls, is still in the army service and is now located at Grand Rapids, Michigan, as recruiting officer.

The Southwestern Iowa branch of the State Board of Health Laboratory, Creston, Iowa, Dr. H. M. Stanley, director, was recently established.

OBITUARY

Dr. J. W. Starr died suddenly at his home in Pocahontas, January 17, 1920, of angina pectoris.

Dr. J. W. Starr was born in Clark County, Missouri, on January 31, 1858, and in a few days would have been sixty-two years of age. At the age of eight years he moved with his parents and sister, now deceased, to Lacona, Iowa, where he grew to manhood and operated a drug store for a number of years.

In 1895 he was united in marriage to Caroline Graham. To this union were born three children, Wallace, age thirty-seven; Chester, age thirty-six, both of Ware, Iowa, and Merle of Minneapolis, age thirty-four, now a traveling salesman. In 1885 the family moved to Fairfield, Iowa, where the Doctor studied medicine and operated a drug store and in 1887 moved to Keokuk, Iowa, where he gave his entire time to the study of medicine and graduated from the Medical College of Keokuk, Iowa, in 1889. He commenced his practice at Avery, Iowa. In 1891 on account of his wife's failing health they moved to Albia, Iowa, where he again followed his chosen profession. His wife died the following year after which he moved his family to Liberty Center, Iowa, where he took a post graduate course in medicine and in 1903 moved to Pocahontas, where he has since resided until the time of his death.

Dr. E. G. Birge, state epidemiologist, died Feb. 4, 1920, at 12:50 of pneumonia following influenza, after

an illness dating from Monday, January 26. The noted physician leaves a wife and two children. His mother died last December and his father, who is president of the Wisconsin State University, as well as his sister are both ill with influenza at this time and were unable to answer the call to his bedside, a few days ago when his condition grew serious.

Dr. Birge came here last August at the call of the university to accept the position as state epidemiologist and professor of preventive medicine, to take the place made vacant by the resignation of Dr. J. H. Hamilton. He took up his residence at 727 East Jefferson street and took charge of the work assigned to him in a manner that commanded the respect and admiration of all medical men of the university. His previous experience with the state board of health of the State of Florida and in the army service enabled him to make a splendid showing from the very start, and his services were eagerly sought throughout the state in case of threatened contagious epidemics.

Several medical experts, high in the service of the university have spoken very highly of the work done here by Dr. Birge, and Dr. Henry Alberts, who was closely associated with him today stated his high estimation of the man as judged from a scientific standpoint and from results already accomplished.

Dr. Birge came here from the army service, where he labored in the health department. Before entering the service he had for a number of years been with the state board of health of Florida and directly following his graduation at Johns Hopkins University at Baltimore, he held a position as instructor of hygiene and preventive medicine at Harvard.

Dr. Birge was born in Madison, Wisconsin, thirty-seven years ago and his father, Edward A. Birge is at this time president of the University of Wisconsin at that city.

Surviving are his wife and two sons, Edward age five and Lawrence age seven. No arrangements have been made for the funeral but it is probable that the body will be shipped to Madison for burial.

To the prostrated wife and family a large circle of friends from the university and city all extend their sympathy.—Iowa City Citizen.

Dr. J. W. Finarty, prominent Knoxville physician, died suddenly at his home in this city Monday evening, February 16, 1920, about 6:00 o'clock.

The Doctor had put in a strenuous day driving through the country calling on patients. Arriving home in the evening he complained of severe pains in his shoulder. In a few moments he sank into coma and passed away.

Dr. Finarty was one of the oldest practicing physicians in Marion county. He was born in West Virginia on January 16, 1848. His parents came to Iowa when he was a small boy and settled near Pella. At the outbreak of the Civil War he enlisted in the Sixty-third Illinois Volunteer Infantry and served until Lee's surrender at Appomattox court house.

MAKE THE ATTENDANCE 1000 FOR THE SIXTY-NINTH ANNUAL SESSION

Returning from the army he entered the old Keokuk medical school where he received his degree in medicine. In later years he took post graduate work in Chicago, New York and at Johns Hopkins University, in Baltimore.

In 1871 he began the practice of his profession in Dallas. While residing at that place he was married to Miss Mary Auld, a prominent Knoxville school teacher of that period. After a residence of twelve years in Dallas he removed to Knoxville for the practice of his profession and for forty years has ministered to the afflicted of Knoxville.

When the exemption boards came into existence Dr. Finarty was made chief examining surgeon.

At the time of his death he was coroner and chairman of the local board of health. He always took an active interest in military affairs and was at one time captain of Company D.

For half a century he was a member of the American Medical Society, and since its organization one of the leading members of the Marion County Medical Society.

Dr. W. A. Jones died at his home in Cantril, Tuesday evening, February 17, at 7:15 o'clock. He was seventy-nine years, eleven months and ten days of age.

Dr. Jones was born in Franklin, Johnson county, Indiana, on March 10, 1840. In 1841 his parents moved to Fairfield, Jefferson county, Iowa, and the Doctor has been a resident of this state since.

Dr. Jones read medicine in Fairfield and graduated from the University of Michigan. Prior to his graduation in medicine and surgery, he taught mathematics in the old Exline University, now Parsons College, but with a diploma in his possession started the practice of medicine in Winterset, a village now extinct. Shortly before starting on his medical career Dr. Jones married Miss Altha Miller, a daughter of Thomas Miller, another Jefferson county pioneer. They came to Cantril in 1876.

Dr. George W. Eschelman, for many years a resident of Cherokee, passed away this morning at his home at 722 West Cedar street, after an illness extending over many weeks. For months, in fact, he had been in a serious condition but kept up a courageous battle to the end.

Funeral services will be held from the home at 8:00 o'clock Thursday afternoon.

Mrs. M. J. Fitzpatrick, wife of Dr. M. J. Fitzpatrick, of the Park Hospital staff, Mason City, died at their home Tuesday, February 3, 1920.

Mrs. Grace Harding, wife of Dr. L. W. Harding, University Anesthetist, died at their home in Iowa City, January 28, 1920.

THOMAS ADDIS EMMET, M.D.

The death of Dr. Thomas Addis Emmet, which occurred on Saturday, March 1, 1920, removes one of the most interesting and romantic figures from the field of medicine in New York. He was born on May 29, 1828, at Charlottesville, Va., a son of Dr. John Patten Emmet, professor of chemistry and materia medica in the University of Virginia, and a grandnephew of Robert Emmet, the Irish patriot. Doctor Emmet studied at the University of Virginia and took his medical degree at the Jefferson Medical College in 1850. He served as physician to the Emigrant Refuge Hospital on Ward's Island, as assistant surgeon and later, chief surgeon to the Women's Hospital, and as a visiting or consulting physician to many institutions in New York. He attained considerable prominence in the field of the diseases of women and published many articles in the medical journals, having been a frequent contributor to the New York Medical Journal as well as to the special journals devoted to gynecology and obstetrics. He was also the author of a text-book on the principles of gynecology which ran through several editions and had a very large sale.

Early in his career Doctor Emmet began to take an active part in the agitation for Home Rule in Ireland and became president of the Irish National Federation of America in 1906. He was made a Knight Commander of Saint Gregory the Great, by Pope Pius, being one of the few Americans who had been made a papal count. He was for many years one of the foremost collectors of American prints and autographs and extra illustrated number of books, one collection of which was sold to the late John S. Kennedy for \$150,000 and presented by him to the Lenox Library. Another collection was sold later for \$72,000. Doctor Emmet married Catherine R. Duncan, who died on November 14, 1912. The rooms in which he died were in the top story of a building erected by him several years ago on the site of his old home at 87 Madison avenue, which he had occupied for forty years.—New York Medical Journal.

THOMAS BUZZARD, M.D., F.R.C.P.

Thomas Buzzard, M.D., F.R.C.P., died in London on January 1, 1919, in his eighty-eighth year. He was born in London and received his early education at King's College School. At the age of fifteen he became apprenticed to a doctor and later studied at King's College Hospital. He received the degree of M.R.C.S. in 1854, and served in the cholera epidemic in Soho during that year. He took part in the Crimean War and assisted the establishment and conduct of a base hospital at Trebizond. For his excellent services he received the Crimean Medal, with the clasp for Sebastopol, the Order of Medjidie, and the Turkish War Medal. Dr. Buzzard returned to England and graduated M. B. Lond. (1857). In

partnership with Mr. J. G. French, F.R.C.S., he held the position of parish doctor to the St. Luke's district of St. James' Parish.

After six years, Dr. Buzzard retired from general practice. His journalistic work led him to the National Hospital for Paralyzed and Epileptic, where he eventually became physician. His connection with the hospital aroused his interest in neurology, and he gradually came to be one of the leading neurologists in London. Dr. Buzzard contributed several articles to Quain's Dictionary of Medicine, and an important paper on retro-ocular neuritis to the Transactions of the Ophthalmological Society, in 1897. Dr. Buzzard was one of the leaders of the etiological movement. He contributed an interesting paper on the influence of microorganisms and their toxins in the production of diseases of the nervous system to the Section of Neurology at the annual meeting of the British Medical Association, Edinburgh, in 1898. Two years later, at the annual meeting at Ipswich, he was president of the Section of Medicine, and took an effective part in the discussion on influenza as it affects the nervous system.—Boston Medical and Surgical Journal.

SIR JAMES MACKENZIE DAVIDSON

The death is announced of Sir James Mackenzie Davidson, the pioneer of applied radiology in medicine, as far as England is concerned. Born in Buenos Ayres of Scottish parents, educated in Edinburgh, and practicing in Aberdeen and London, he was a fine example of the cosmopolitan medical man. His first bent was toward ophthalmology, and at Aberdeen he was assistant to the professor of that subject as well as university lecturer, and ophthalmic surgeon to the Royal Infirmary. But in 1897, after fifteen years of first class ophthalmic work, he came to London and devoted his attention to the application of the newly discovered x-rays to surgery. He promptly invented the precise method of localization by means of x-rays for foreign bodies in the orbit, which is still in everyday clerical use, and from his work there have arisen many developments for the localization of bullets which have proved of infinite service during the war. He was at the time of his death consulting radiologist to many military hospitals as well as to Charing Cross Hospital in connection with the Roentgen Ray Department, and president of the Roentgen Society. At the International Medical Congress, which met in London in 1913, he was president of the radiology section. Sir James Mackenzie Davidson was sixty-three years of age.—Medical Record.

BOOK REVIEWS

SYPHILIS

A Treatise on Etiology, Prognosis, Prophylaxis and Treatment. By Henry H. Hazen, A.B., M.D., Professor of Dermatol-

ogy and Syphilology, Medical Department of Georgetown University; Professor of Dermatology and Syphilology, Medical Department of Howard University. Member of American Dermatological Association, etc. Visiting Dermatologist and Syphilologist to Several Hospitals. With 160 Illustrations Including 16 Figures in Colors, 648 Pages. C. V. Mosby Company, St. Louis, 1919.

The book Dr. Hazen has written for the medical profession is of great practical value because of the systematic manner in which the subject is presented. After briefly considering the etiology and pathology of syphilis, the manifestations of the disease as it appears in the various tissues and organs, the symptoms of the early stages are set forth; after which the cutaneous lesions are described in considerable detail and illustrated by numerous figures. The early and late skin lesions are of great importance in diagnosis, and are considered in a most helpful manner. It would appear that Dr. Hazen has had access to an abundant material which has been utilized in the many figures, illustrating the lesions which cannot be successfully described in text. Three chapters are presented of lesions of the digestive tract and of the respiratory tract.

Syphilis of the circulatory system brings about such disastrous results that several chapters are given to lesions involving the heart and arteries, particularly syphilis of the myocardium, endocardium and of the valves of the heart including the coronary arteries, and of the effect of this lesion in producing angina, the effect of aortic changes in producing aneurysm of that vessel and the effect of syphilis of the peripheral arteries in producing Raynaud's disease and similar conditions.

In considering syphilis of bones, muscles and joint, Dr. John Dunlap of Washington is associated with Dr. Hazen.

Syphilis of the nervous system constitutes one of the most important chapters in the study of this disease, this chapter is written by Dr. John E. Lind of Washington, who brings to our attention the recent advancements in the study of the disease which is responsible for many of the wrecks which fill our insane hospitals. The means of early diagnosis are at hand and with more watchfulness on the part of the profession, much can be accomplished. We are warned in all these studies to depend first on clinical diagnosis and confirm by laboratory tests. Syphilis of the special organs is briefly considered. A chapter on congenital syphilis is presented.

Four special chapters on Diagnosis, Prognosis, Prophylaxis and Treatment close the volume. These chapters are of great importance. The knowledge recently gained in regard to syphilis, particularly diagnosis and the study of prophylactic measure, will contribute greatly to public welfare. The activities of governments in cleaning up communities, of infection, the campaign of education and the treating of syphilis as a public menace will have a most beneficial public effect. The profession and the public

are thoroughly aroused to the dangers at our door as never before, and it is to be hoped that there will be no relaxation of effort.

THE MEDICAL ASPECTS OF MUSTARD GAS POISONING

By Aldred Scott Warthin, M.D., Professor of Pathology and Director of the Pathological Laboratories of the University of Michigan, Ann Arbor and Carl Vernon Weller, M.D., Assistant Professor of Pathology, University of Michigan, Ann Arbor. With 136 Original Illustrations. C. V. Mosby Company, St. Louis, 1919. Price \$7.00.

This book contains a record of research work conducted in the Pathological Laboratory of the Medical Department of the University of Michigan on Mustard Gas Poisoning during the years 1917-1918-1919.

We have had many journal articles and notes on gas poisoning and have a more or less clear idea of the main facts, but this is the first thorough study of the whole subject that has appeared in book form.

The first chapter considers the medical aspect of gasing in warfare. The historical relation belongs to Germany, as this is the first nation since the use of Greek fire (1224-1319) that had resorted to what was regarded as an uncivilized method of warfare. The chapter considers the various forms of gas used. Commencing with chapter second, is an experimental study of the effects of mustard gas (Dichlorethylsulphide) on the cutaneous surface, eye lesions and respiratory lesions with abstracts from the work of other observers also on accidental lesions on human skin. This study is carried out in great detail. A large number of clinical cases were observed in men engaged in the manufacture of mustard gas, two of whom died, admitting of careful autopsy examination. Chapter three considers eye lesions both experimental and clinical with thorough micropic pathology. The eye symptoms are considered in detail, including treatment.

Chapter four relates to lesions of the respiratory and gastro-intestinal tracts including clinical studies.

Chapter five considers the general pathology of mustard gas poisoning (dichlorethylsulphide). This includes experimental and clinical observations and experimental and human autopsy studies. Each chapter closes with carefully considered conclusions.

Chapter six by George R. Herrmann, considers the clinical pathology of mustard poisoning with a series of ten cases of different degrees of severity.

Chapter seven considers in detail the treatment to be employed and the things to be avoided, and protective and preventive measures.

The concluding chapter eight presents a general summary of mustard gas poisoning.

While it is to be hoped that this kind of warfare is at an end, accident cases are liable to occur, and this volume of carefully prepared studies is of great

interest as a contribution to the history of the Great War, in which gasing was an important factor and had it not been for the active and ingenious precautions of the Allies, the termination might have been quite different.

THE SURGICAL CLINICS OF CHICAGO

October, 1919, Volume 3, Number 5, with 94 Illustrations. W. B. Saunders Company.

This number contains war clinics from U. S. A. General Hospital No. 28, Fort Sheridan, by H. A. Potts and A. H. Montgomery. The principle cases relate to abdominal surgery, but there are other subjects; the prostrate, bladder and exophthalmic goitre; Dr. E. L. Cornell at the Chicago Lying-in Hospital gives a demonstration of obstetric cases with discussion of points in technic. Dr. D. N. Eisendrath gives an interesting clinic on cystic disease of the kidney.

PROGRESSIVE MEDICINE

A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., and Leighton F. Appleman, M. D. Lea and Febiger, 1919. Price \$6.00 Per Annum.

We have before us the December number, Volume 22, and first a rather extensive digest of recent literature on diseases of the digestive tract and allied organs, the liver, pancreas and peritoneum by Edward H. Goodman, associate in medicine, University of Pennsylvania. The subject is treated from a medical point of view. The first point considered is the Autonomic Nervous System including the sympathetic outflow and the parasympathic. This has, of course, a relation to the nervous phenomena of digestion including such pathologic conditions as esophageal spasm, cardiospasm and acute dilatation of the stomach. Some consideration is given to hemorrhage from the stomach, epinephrin is mentioned as a remedy. But absolute rest and morphia must be the chief reliance. Very little is said about the surgery of the stomach, the principle object of the author is to set forth the important facts in relation to the function of the stomach and the medical treatment of disordered states.

The author passes from the stomach to the intestine and considers conditions of every day import. An interesting review of the treatment of constipation is given and presents much that is suggestive. Our views on intestinal autointoxication have been considerably modified by the discussions of Alvarez, Taylor, Adami and Goodman, which is pointed out.

The relation of diseases of appendices to painful gastropathies is interestingly brought out.

Professor Henry A. Christian of Harvard prepares the review of literature on diseases of the kidneys.

We regret that we have not sufficient space to follow in detail the valuable things Dr. Christian gives

(Continued on Adv. Page xxiv)



Glandular Insufficiency

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BOOK REVIEWS

(Continued from Page 136)

us. Professor Charles W. Bonney of Jefferson Medical College prepared the digest on Genito-Urinary Diseases and Dr. Walter E. Lee the review on the Surgery of the Extremities, Shock, Anesthesia and other surgical conditions, which are of particular interest to the general practitioner who deals with traumatic surgery. This number of Progressive Medicine closes with a Referendum by Prof. H. R. W. Landis, University of Pennsylvania.

MANUAL OF OBSTETRICS

By John Cooke Hirst, M.D., Associate in Gynecology, University of Pennsylvania; Obstetrician and Gynecologist to the Philadelphia General Hospital. 12Mo of 516 Pages with 216 Illustrations Philadelphia and London. W. B. Saunders Company, 1919. Cloth \$3.00 Net.

This is a companion to the author's Manual of Gynecology, and as in all well prepared manuals, the subject is treated, to use the author's words "in an effort to present the subject clearly and concisely and to avoid all unprofitable discussions."

Embryology is not treated at great length, as not being necessary in this form of text-book, an instance of the curtailment required to confine the text to the allotted space.

Following the initial chapter on Anatomy and Physiology, which includes Congenital Anomalies of the Uterus, the subjects of Menstruation, Ovulation, and Development of Fetal Appendages is taken up, preliminary to the consideration of Physiology, Diagnosis, and Differential Diagnosis of Pregnancy. The Management of Normal Labor and the Normal Puerperium and the Physiology and Management of the New Born Infant are considered before discussing the Mechanism of Labor.

Similarly the Disease of the Ovum and Intra-Uterine Diseases of the Fetus, and Monstrosities, are placed before the Pathology of Pregnancy. Thus is produced a well planned and well balanced work, especially fitted as the author states, for "both the medical student and the practitioner, whose time for voluminous reading is limited."

H. R. R.

THE MEDICAL CLINICS OF NORTH AMERICA

Volume 3, Number 2. Octavo of 270 Pages, 35 Illustrations. W. B. Saunders Company, Philadelphia and London. Price \$10.00 Paper, \$14.00 Cloth.

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THE VALUE OF MILITARY SURGERY IN CIVILIAN PRACTICE*

GEO. W. CRILE, M.D., F.A.C.S.

Mr. President and Members of the Tri-State District Medical Society:

It is my first and pleasant duty to express my sincere appreciation of the honor you have conferred on me by your invitation to address you today and to share with you certain lessons learned from experience with the Allied Armies in France.

In the service in the field many lessons were learned. Every theory was tested in the crucible of practical application on a vast scale. We were dealing with hundreds of thousands of patients as we deal with hundreds here. Surgery lived years in days. The combined experience of thousands of surgeons was immediately available for comparison and for study by the individual surgeon; by the surgical staffs of hospitals; by the consultants; by the Red Cross Research Society; by the Interallied Conference; all of which were seeking to discard the false—to find and to hold fast to the true. All questions pertaining to the care of the sick or wounded soldier were thus studied in detail and in the mass by the nations at war; and finally in Paris at a conference of those chosen by their respective governments to make up a consensus of opinion, conclusions from this great mass of evidence were scrupulously drawn.

Perhaps the one fundamental lesson that far and away beyond all others became increasingly emphasized during our service with the armies at the front, in the field dressing stations, in the base hospitals, was the fact that there is no basic distinction between the war patient and the civilian patient; between the man exhausted by days and weeks of intensive fighting, of tense waiting, of dirt and wet and hunger and thirst, and the starved patient exhausted by the pain and ravages of a devouring disease. In war surgery as in

civil surgery the prime problems are the same—shock, hemorrhage, infection.

In this paper therefore, we shall consider methods of dealing with these conditions which have proved effective in the vast war clinic and shall draw certain analogies between the military and the civilian patient.

INFECTION

The mere fact that man is surrounded, covered and penetrated by an infinite number of bacteria, and yet lives, is a proof that the human body has within itself adequate defense against bacteria. This defense we may be sure was attained through struggle and survival—that is, through biologic adaption—and is the bulwark of the treatment of infection.

An interesting proof of this biologic adaption is the fact that the various parts of the body have varying powers of defense against infection, the most efficient defense in general being possessed by those parts most exposed to infection from injury, such as the external soft parts or those which lie in infected areas, such as the intestines.

On the other hand, the inner protected parts—such as bone, especially deeply placed bone, the deep muscles and especially protected organs and tissues, such as the heart, the brain, the spinal cord and the retroperitoneal tissue—have had less opportunity to make a selective struggle, hence in these parts weaker defenses against infection have been evolved. What does the tissue of the foot possess that is not possessed by the mediastinum, or by the femur? What does the peritoneum possess that is not possessed by the dura, what endows the skin and the peritoneum with a better defense against infection? The part whose defense is weakest usually possesses a limited blood supply, as compared with parts whose defense is stronger. There is apparently no other difference as striking nor as marked as the difference in blood supply. We may then infer that a rich blood supply is the key to the defense against infection. The face and scalp, the external parts of the body, the abdomen, have a rich blood supply as compared with the deep

*Read before the Annual Assembly of the Tri-State District Medical Society held at Rockford, Illinois, Sept. 1, 2, 3, 4, 1919.

lumbar muscles, the bones, the spinal cord, the retroperitoneal tissue. Not only is the normal blood supply less in these poorly defended regions, but the local vaso-motor mechanism is less developed, hence there is less reaction to the invading bacteria. For the most efficient defense there must be not only abundant blood, but normal blood. As Sir Almroth Wright has shown, the blood must not be acidosed, as when blood-pressure is low, for saprophytes flourish in such a medium. The bones, the deep tissue planes, the mediastinum, the spinal cord, the brain, the retroperitoneal space, are all hazardous regions for infection. In the mind of the surgeon the body should be charted like the sea, and he should direct his course according to this chart. One region requires one plan of action, another, such as the scalp or the face, no special plan. Face wounds heal almost equally well with good surgery, with poor surgery, with no surgery. The infected mediastinum heals almost equally badly with no surgery, with poor surgery, with good surgery. A pulseless patient becomes a universal mediastinum. A limb, anemic as from a neglected tourniquet or from the severing of the arterial supply, becomes as helpless as the meninges; the war patient in exhaustion from cold and wet and exposure, from loss of sleep and from fighting, and the starved civilian with cancer of the stomach or with perforating ulcers, alike have a universally weak defense. Patients prostrated by shock or by hemorrhage have low resistance. As a rule, defeated, dejected troops have less resistance than victorious troops. The defense, then, in the normal soldier varies with the several parts of the body, the frontiers of the organism being best defended. The defense, even at the frontiers of the organism, is lowered by interference with the local blood supply, whether of an entire limb, or of the devitalized bloodless tissue along the injured track of the missile; it is weakened by low blood-pressure from shock, with its secondary acidosis; or by hemorrhage; it is weakened when the entire individual is in exhaustion. The defense, in turn, is augmented by rest, by sleep, by fluids, by the revision of wounds; by restoration of the local and general blood supply. Excision of devitalized tissue, rest, a night's sleep, a transfusion of blood, become valuable "antiseptics" and tend to restore and preserve the natural defense.

SHOCK AND HEMORRHAGE

I have already referred to the Interallied Surgical Conference as a sort of supreme court of surgery. The conclusion of this conference regarding shock may be summed up in the follow-

ing brief dictum: *The best treatment of hemorrhage and shock is rest, warmth, fluids, morphin for pain, and blood transfusion.*

The war elicited no new fact in regard to the treatment of shock and hemorrhage but it confirmed civilian experience as to the prime importance of nitrous oxid-oxygen as the anesthetic of choice, and as to the value of nerve blocking as a preventive.

One of the greatest errors in the treatment of shock is to allow a patient to remain in a state of low blood-pressure in the hope that he will improve through his own resources, reserving a blood transfusion to be used as a last resort after it has become obvious that the patient is going to die. This is the same faulty logic that was once used in dealing with appendicitis. When the indication for operation in appendicitis was supposed to be a clammy, pulseless state, when the patient was dying, surgical treatment became almost discredited. It is equally illogical to wait for impending dissolution in shock before improving the circulation. Treatment should not be deferred until the inaugural state of death is established. There is another method of treating shock which is not generally applicable to war conditions, and that is narcotization with morphin—giving morphin on the same scale as in the Alonzo Clark treatment of peritonitis, *i. e.*, keeping the patient under morphin so completely that the respirations are cut down to about thirteen to fifteen per minute and the patient is deeply asleep. During this time one should give between 2000 and 3000 c.c. normal saline infusion subcutaneously. When properly carried out excellent results may be obtained by this method which, however, should never be employed if there is cyanosis, and never routinely, and always under expert supervision.

THE OPERATION

The Interallied Surgical Conference adopted as one of its conclusions that in the treatment of wounded soldiers *the anesthetic of choice is nitrous oxid-oxygen combined with local anesthesia.* Among the evidence offered in support of this tenet Surgeon General Sir Anthony Bowlby presented the work of one of the most brilliant British military surgeons, Captain Douglas C. Taylor, and the work of the chief of anesthetic service of the British Army, Captain Gregory Marshall. The experience of Captain Taylor I am privileged to quote.

Until the summer of 1917 my colleague, Captain G. Marshall invariably gave ether for my laparotomies for gunshot wounds of the abdomen. No series of

100 consecutive cases showed a recovery rate of much over 50 per cent.

During the summer and autumn of 1917 I did 101 laparotomies for abdominal wounds, and nearly half of them were given nitrous oxid and oxygen combined with infiltration of the abdominal wall with eucain and novacain. The more serious cases, i. e., those with rapid pulse and low pressure were nearly all done by this method.

Of this series, twenty-seven died at the Casualty Clearing Station and seventy-four were evacuated to the Base; of the latter there have been only two deaths, both from secondary hemorrhage—one from the kidney and the other from the rectum and buttock.

That is, by the employment of anociation, Captain Taylor's mortality rate was reduced from approximately 50 per cent to 29 per cent.

Captain Marshall has demonstrated that patients may apparently do well during ether anesthesia but do badly afterward, while they do well both during and after nitrous oxid-oxygen anesthesia.

The experience of the various resident and detached members of the Lakeside Unit which collectively dealt with over 83,000 medical and surgical patients is also in accord with the foregoing conclusion. It may be noted that in abdominal operations somewhat better results were obtained when before the beginning of the operation sufficient blood was transfused to permit a safe performance of the operation; and again at the completion of the operation an ample amount of blood up to 750 c.c. was given. Furthermore, if a let-down appeared later, the transfusion could be repeated. Meanwhile the advantages of comfort, rest, warmth, morphin and fluids were added.

The advantages of nerve-blocking are further emphasized by Colonel Cabot's communication to me regarding his series of 180 amputations of the thigh, one-half under ether, one-half under spinal anesthesia with a reduction of mortality by the use of spinal anesthesia of 50 per cent; while Captain Taylor by the use of nitrous oxid-oxygen and local anesthesia reduced his mortality rate for thigh amputations more than 200 per cent.

It would seem that these conclusions of the Interallied Surgical Conference regarding the technic which would deal most successfully with infection, shock and hemorrhage in exhausted soldiers in whom bullets or shell fragments had ploughed their way through septic material into the hollow viscera should provide even greater protection to the civilian patient in whom avenues into the viscera are opened under the utmost aseptic precautions.

THE GOOD SURGEON

The surgeons and the pathologists who for four years have intensively studied war wounds, have formulated many theories of treatment—many apparently contradictory theories. Thus there have been presented the claims of the value of various chemical agents against those of no chemical agent; of moist dressings against dry; of heat against cold; of frequent dressings against infrequent, and of no dressings against both; of sunlight and of electric light against occlusion; of immersion against hot air; of bacteriological control against clinical judgment; of vaccines, toxins and foreign proteins against normal reaction; of wound inoculation with harmless organisms against wound sterilization; of isotonic against hypertonic solutions paste has competed with paste; bip with ip; sap with both; and chromic pastes with all.

Does not this intensive study of infection in war wounds for this comparatively short period equal and recapitulate the more leisurely study of infection during the thirty years since Lister first proposed the carbolic spray? And is there not slowly emerging from the present conflict of opinions the same fact as that which emerged from the post-Listerian period—that the one agent of successful surgery, whether war surgery or civil surgery is the *good surgeon*?

In civil surgery here in America, by what agency was mastery achieved over appendicitis, over cholecystitis, over tubal infection, over adenitis? What agent has contributed the most to the success of resection of the intestines and of the stomach; of gastroenterostomy; of treatment of suppurating stone in the kidney; of the treatment of infection of subcutaneous tissue? What agencies have achieved survival? One and but one—the *sound surgeon*, who always creates opportunity. Is it possible that in these four intense years of war surgery, in which more experience in traumatic surgery has been accumulated than during the past thirty years, we have traveled around the same circle as in civil surgery and have again found the same *surgeon*.

By sound surgery we mean the assumption of complete inclusive responsibility for every item that enters into the result; the consideration of the patient as well as the wound; the development of an ability to read the wound as well as the man aright. Sound surgery means quick, innocuous, timely intervention; it means seeing clearly the tomorrow of the wound; it means no intervention unless there is to be a net gain; it means a sharp knife, a good anesthetic, a painless innocuous dressing; it means as much respect for the tissues

of the anesthetized man as those of the unanesthetized man; it means a training in judgment that unerringly tells when to cut, how far to cut, when to quit cutting. It plays all the defenses and reparative forces of the patient. Good surgery is the exponent of no single method. It recognizes the anatomical and environmental situations in which chemical and physical agencies are useful. Good surgery exploits physiologic rest and fluids and sleep; it gives little pain. Good surgery evokes confidence; and confidence begets restoration. Good surgery, then, makes use of antiseptics and physical forces, just as it uses incisions, counter-drainage, revisions, skin-grafting, blood transfusion. Good surgery does not substitute an easy formula for its principles; above all, it always is dissatisfied with its work and always is open to suggestion.

What could the good surgeon accomplish with the wounds of war, with good opportunity but no antiseptics? Without antiseptics he could close by primary union a higher percentage of contaminated wounds than with antiseptics; he was able to remove damaged tissue with such accuracy that the natural defenses of the revised wound became its best antiseptic; he closed penetrated knee joints more securely without than with antiseptics; he closed penetrated skulls without, better than with antiseptics; he cleared up foul and infected superficial wounds as well without as with antiseptics; he met gas gangrene with timely use of the knife as well without as with chemical agents. He closed healthy superficial wounds with early suture tied lightly; healthy wounds that could not be closed by suture he closed by skin grafting, both as a healing and as a bacteriocidal policy; he closed fecal and urinary fistulas without antiseptics.

On the other hand, he realized equally that in compound fractures with or without bone infection, in deep, recessed wounds, in pyocyanus infection in many other types of wound that antiseptics might have great advantages, and he used them and used them well. In certain phases of a wound, he would use Carrel-Dakin; in another acetic acid; in another, hot pack; in another, incision—a physiologic incision today to avoid the tissue tension of tomorrow; in another transfusion; in another, sunlight or electric light; in another, continuous alcohol to make a scar covering.

In the rush of a great battle, he incised for drainage, and in addition he made "physiologic incisions" to avoid the tension that is sure to follow the next day from the inevitable infection.

But in quiet times, he dissected out every atom of devitalized tissue. He read accurately not only

the wound, but the patient; not only the patient but the military situation; not only the military situation, but the condition of the infecting soil, the state of transport, his surgical assistance, and the type of nursing care—that is, he weighed accurately his chances for success. Therefore, the army medical service and the wounded man pinned their hope and their faith first, last, and always to the one agency of wound treatment that in civilian surgery emerged clearly from the confusion of the Listerian period; emerged clearly from the confusion of the four years of military surgery—the sane, sound surgeon.

SUMMARY

The experience of this war has demonstrated (1) that spinal anesthesia, nerve blocking, or local anesthesia, each minimizes or prevents shock; (2) that nitrous oxid-oxygen minimizes and prevents shock to almost the same degree; (3) that when patient's condition is poor or if the operation is to be extensive and long, it is imperative to use nitrous oxid-oxygen anesthesia with or without local or regional anesthesia. If nitrous oxid-oxygen is not available, then, in amputations of the thigh in particular, low spinal anesthesia according to the method of Cabot is the choice; (4) that when shock has been established the most efficient treatment consists in the employment of rest, sleep, heat, large quantities of fluid, blood-transfusion, morphin.

The treatment of infections may be summarized as follows:

1. Before the stage of granulation and new tissue formation, revision of the wound—cutting away all devitalized tissue, removing all foreign bodies, especially clothing, providing free and dependent drainage.

2. Following the above, if the circumstances warrant, immediate or secondary closure as may be indicated.

3. No primary wound closure can be made if the patient is in a state of shock or exhaustion.

4. When the stage of granulation has been reached, free incisions, to relieve tension and to prevent the spread of infection; hot packs; and physiologic rest.

5. In recent wounds and under circumstances in which drainage cannot be established, the Carrel-Dakin method is the method of choice.

6. In wounds near the surface not showing much recessing, dichloramin-T does very well.

7. When it is necessary to keep the wound free from the increased infection that might occur as a result of the transportation of a wounded man whose wound had been thoroughly revised

from the front to the base hospital, then 1 to 1000 solution of flavine would be the method of choice; the second choice is dry gauze and no antiseptic.

8. Infections are treated by raising the local blood supply and local resistance as well as by raising the general resistance of the patient. The importance of the latter is frequently forgotten.

The increased resistance of the patient in the chronic forms of infection is accomplished by adopting as far as possible the dietetic and hygienic treatment for tuberculosis, and by giving transfusions of blood at intervals. The transfusion of blood is the most potent method of increasing the circulation, improving the blood and raising the resistance. The Harvard Unit under Colonel Cabot used this method extensively.

Infected wounds often times show a marked improvement immediately following a transfusion of blood. As a therapeutic agent transfusion may be repeated a number of times.

The results secured by applications of these principles may in turn be briefly summarized as follows:

The Head—It has been surprising in this war to find how well the brain resists infections in strong, able-bodied soldiers. In these cases the wounds do best on the whole by being thoroughly revised, thoroughly cleansed and closed immediately, even though there may be some bacteria in the wound.

Wounds involving the mouth do very well under treatment with dichloramin-T sprayed through an atomizer.

Contaminated wounds involving the trachea and the deeper planes of the neck are best treated by laying them wide open and packing with iodoform gauze.

The Chest—The most serious wounds of the chest are the "sucking wounds." The chest wound should be closed tightly and even when operating for empyema following a penetrating wound of the chest, the wound should be closed even though but temporarily so as to obviate any danger from the air.

The Carrel-Dakin method is excellent in the treatment of infections within the thorax.

If there is cyanosis, and this is very common, then the inhalation of oxygen under pressure supplied by gas oxygen apparatus for a period of from five to eight minutes immensely improves the internal respiration and raises the vitality of the patient in advance of the operation.

The work of Gask and Robinson for the British Army and of Yates for the American Army has shown very conclusively that the chest may

safely be opened and portions of the lung resected with good results.

Yates has shown conclusively the advantages of positive pressure applied by the gas-oxygen apparatus. He has also demonstrated the fact that the chances for recovery are increased if the lung is put to rest by nerve blocking.

Wounds involving the chest and the abdomen usually show high mortality. Many examples of herniation of the intestines into the thorax were found. The diaphragm is more easily accessible through the chest, as a rule, than through the abdomen. Operations above the diaphragm were well borne. Operations upon the heart were not common, but some successful cases were noted.

The Abdomen—Penetrating wounds of the abdomen should receive early and prompt attention by an experienced surgeon. The best results thus far reported are those of Captain Taylor which we have already quoted.

Where indications of peritonitis are present, put the patient in the Fowler position and employ hot packs and large doses of morphin, practically utilizing the Alonzo Clark method, and administer from 2000 to 4000 c.c. of water subcutaneously every twenty-four hours.

The high resistance of the peritoneum in wounded soldiers was a constant surprise. As a rule after penetrating wounds of the abdomen the more common complications were pneumonia, bronchopneumonia, and retroperitoneal infections, rather than peritonitis. In military surgery, as in civilian surgery of the abdomen, the best results followed ample incisions. It made very little difference whether incisions were transverse or vertical. The mortality rate of operations on the large intestines was higher than that of the stomach or the small intestines. Penetrating wounds of the liver are best left untreated; wounds of the spleen are best treated by splenectomy; of the kidney, if extensive, by nephrectomy. Penetrating wounds of the bladder are best treated by a free exposure and immediate suture.

The Extremities—The knee joint. It was a matter of great surprise to find how well the knee joint resisted contamination. This, it must be confessed, was in all probability due to the high grade resistance of the patient, rather than to any new form of treatment. It was found that antiseptics not only did no good, but were harmful when applied within the knee joint. Aseptic operation—cleaning out the knee joint, getting rid of all foreign bodies and devitalized tissue, followed by complete closure of the joint—gave the best results.

Penetrating wounds of the joints when the bone was not shattered, at least not extensively shattered, did best without operation.

Pyogenic infection of the knee joint other than from hemolytic streptococcus, in the early stages very often was cleared up by being thoroughly washed out and then closed again.

Streptococcus infection of the joint demanded amputation as a rule.

Bad infection of the joint coupled with compound fracture of the tibia or the condyles of the femur usually demanded immediate amputation. Many lives were lost by ultra-conservatism in this direction. The treatment of compound fractures and of fractures generally, made perhaps greater advance than any other field of surgery in the war, largely as a result of the use of the Thomas and the Hodgins splints and the abolition of coaptation splints and compressing bandages, but most of all these advances were due to the massive experience, although our own army was not in the fight long enough to give our surgeons an opportunity to be compared with that of the British and French surgeons.

One of the finest achievements that came to my attention during the war was the treatment of fractures of the femur in No. 8 Red Cross Hospital, B. E. F. where 1700 cases of compound fracture of the femur were discharged with an average shortening of but a fracture of a centimeter. In most cases even the anterior bowing of the femur was restored. In this hospital out of the total number of fractured femurs, only 9 per cent were amputated and the mortality rate was below 8 per cent. These cases were all infected, arriving at the hospital on the average of about one day after injury. These results were obtained by no dogmatic rules but by good surgery, horse sense and strict attention to the patients. They used no antiseptics except an occasional Carrel. They gave over 200 transfusions of blood for hemorrhage or shock or anemia. Gas and oxygen was the anesthetic. They placed great stress on hygiene, dietetics and the comfort and well being of the individual.

The treatment by Wilms of acutely suppurating joints by free opening, attaching the capsule to the skin, inaugurating at once and continuing day and night active or passive movements, even walking, had unexpected merit. So far as the author can see the benefits of this radical departure were due to the evacuation of the pus preventing pooling and pocketing.

The great war found the medical department of the army better prepared than any other. This was due to the foresight of Surgeon General

Gorgas and the general cooperation of the American Red Cross in organizing and equipping fifty base hospitals as a matter of preparedness. The medical service was the first to actively enter the war.

In turn perhaps the most valuable lessons of the war are being taken back to civilian life by the medical department. Much has been learned as to sanitation; as to acute wound infections; as to anesthetics; as to surgery of the chest and abdomen; as to the treatment of fractures; as to nerve suturing; as to plastic surgery; as to the relation between the organism of man and the destructive forces that surround him. Moreover the war has taught us a better spirit of cooperation and a higher sense of duty to our country.

THE SURGICAL MANAGEMENT OF GASTRIC AND DUODENAL ULCER*

J. E. O'KEEFE, M.D., Waterloo

From the viewpoint of successful treatment and cure, gastric and duodenal ulcers, especially the chronic calloused type, are now considered essentially surgical. Apparently, however, some ulcers are healed by medical treatment, with proper diet and rest.

Ulcer of the stomach located near the cardiac region seems more amenable to medical treatment, while ulcer in the pyloric region, or a duodenal ulcer, fail to respond permanently to any kind of treatment except surgical, as many of the so-called medically cured cases, sooner or later, have a return of the distressing symptoms and the patient comes to operation on account of pyloric obstruction, perforation or severe hemorrhage and in many cases, carcinoma developing in the sight of ulcer. Apparently the relief of symptoms lasting for a short time under the usual form of alkaline treatment and diet, is simply a remission of symptoms, evidenced many times in taking the history of a non-treated case. A careful and unprejudiced study of the so-called medically cured case and the untreated case with recession of symptoms fails to disclose any real difference. The conclusion is, that a great many alleged cures of gastric and duodenal ulcer are due to inaccuracies of diagnosis.

The etiology of gastric and duodenal ulcer as far as it is understood is the same, as it is found quite evident that the same cause that produces gastric ulcer will also cause duodenal ulcer. It is generally agreed that ulcers, whether gastric

*Presented at the Sixty-Eighth Annual Session, Iowa State Medical Society, May 7, 8, 9, 1919, Des Moines, Iowa.

or duodenal, are due to factors that reduce the resistance of the mucosa to the corroding and digestive action of an abnormal gastric juice. Thrombosis and embolism, as advocated by some authorities, no doubt play an important role in the causation of ulcer. Necrosis in the thrombotic area of the mucous membrane takes place, resulting in single or multiple ulcers; the chronicity of the ulcer being continued by the corroding and digestive action of gastric juice, associated with hypersecretion and hyperacidity. Trauma caused by improperly masticated food, and especially by hot drinks, has its advocates, however, trauma as a cause alone seems to have been disproved. Laboratory workers have failed in many animal research experiments, in the production of chronic ulcer. The ulcers caused experimentally by trauma or chemicals would invariably be found healed in eight to ten days, even in the presence of gastric juice, with a high percentage of acidity. These experiments have led to the conclusion that bacterial invasion of the tissues around the ulcer was an important cause of the prevention of healing. Rosenow, has demonstrated in a great many experiments that certain selective strains of streptococci are capable of producing chronic ulcer of the mucous membrane of the stomach and duodenum.

This type of microorganisms can usually be found in the deep tissues in the area of the ulcer, having gained their entrance to the mucous membrane, through the blood stream from suppurating foci in other parts of the body, as a chronic tonsillitis, pyorrhea and apical abscesses.

Patients suffering with pyorrhea seem especially prone to ulcer. Mechanical obstruction in the gastro-intestinal tract, by retarding the normal peristaltic action, causing stasis and retention of food with resultant fermentation and putrefaction, is another potent factor in the causation. Gastric and duodenal ulcer are so frequently associated with iliac and duodenal kinks, chronic appendicitis, adhesions, bands and gall-bladder disease.

Impaired nerve and blood supply has recently been given by Burge as a cause.

The surgical statistics of ulcer has completely upset the former theories of medical teachers and writers, that ulcer was practically only found in the chlorotic and anemic young women, as recently recorded medical literature of one of our large surgical clinics, has shown that over 70 per cent. of ulcers are found in men, ranging in age from twenty-five to forty-five. Another marked change in the statistics relative to ulcer location has been brought to light by surgery. Up to

1914 ulcer of the stomach was considered to be by far the most frequent. At this time W. J. Mayo, pointed out the fact that many duodenal ulcers were diagnosed as gastric ulcers on account of their close proximity to the pyloric ring and now it is generally found that ulcer of the duodenum is much the more frequent.

The symptomatology of gastric and duodenal ulcer is so well known and understood at the present time that in a typical case, a failure of diagnosis rarely occurs, after a careful examination has been made. No examination is complete without calling to our aid, the adjuncts including the x-ray, stomach tube, chemical and microscopic findings of the laboratory. Fortunately the chronic ulcer case is no way an emergency, permitting ample time to make a diagnosis.

The clinical history of the patient, hunger pain coming on regularly from one to three hours after meals, usually a little sooner, in gastric ulcer, relieved by taking food, soda or vomiting; these symptoms taken together with hypersecretion and hyperacidity, and later with development of the usual phenomena of obstruction, in the duodenal ulcer, hemorrhage, and loss of weight in the gastric ulcer, leaves little doubt as to the nature of the lesion. In making a differential diagnosis, chronic gall-bladder disease and appendicitis should be eliminated. Hemorrhage or the tarry black stools should not be considered as reliable, being estimated to occur in only about 25 per cent. of cases.

The differential diagnosis, when hemorrhage is a predominating symptom, is not made without difficulty as hematemesis may be due to splenic, hepatic or cardio-vascular disease, or the bleeding may be due to syphilis, tuberculosis or certain forms of bacterial infection; their toxins producing hemorrhage without demonstrable lesions; in the taking of the clinical history of a patient with ulcer, the chronicity of the case is a striking feature; the majority of patients giving definite symptoms for months and even ten or twelve years during which time they may experience periods when all symptoms disappear to be followed with a recurrence. Dr. J. B. Murphy called attention to the fact that the attacks had a marked tendency to recur in spring and fall. Physical examination of the patient fails to illicit any marked signs, except a local point of tenderness in most cases, though occasionally one might find a small tumor in a thin, emaciated patient when the ulcer is large, with an area of infected, infiltrated tissue surrounding the ulcer.

The cooperation of the experienced roentgenologist, who has gained his knowledge of x-ray

diagnosis of ulcer in association with the surgeon and internist, is now ranking well in the first place as an aid in making a positive diagnosis. The fleuroscopic and radiographic findings, taken together with a clinical history and corroborative evidence of the laboratory tests, a diagnosis can be made before operation in 95 to 98 per cent. of cases.

The surgical procedure necessary in the management of ulcer depends largely on the location, whether in at the cardiac end, posterior wall, or in the region of the pylorus, or a duodenal ulcer. Gastroenterostomy with excision or inversion of the ulcer is the operation of choice, when it can be done, and I know of no other operation that gives more satisfactory results when the very exacting technique of the operation is carefully carried out in connection with the proper selection of cases. The principles and technique of gastroenterostomy are now so well known and understood that it is considered the standard operation for the permanent cure of ulcer, and failure rarely occurs unless some error has taken place in the performance of the operation or the selection of cases. A gastroenterostomy should not be done purely on the strength of x-ray and clinical findings. At operation ulcer can and should in all cases be clearly demonstrated under vision and palpation. The characteristic, pathological appearance of an ulcer in the stomach or duodenum is so well marked that it leaves little doubt as to the nature of the lesion, except perhaps where a carcinoma in the early stages is developing at the site of a chronic ulcer. The incision in the abdominal wall should be so located and long enough, to permit of bringing into clearer view the entire field of operation and permit at the same time an examination of the gall-bladder and appendix; as appendicitis and gall-bladder disease are found to be associated with ulcer in about 16 per cent. of cases. It is considered good surgery, if the condition of the patient permits, to do a cholecystectomy and appendectomy in connection with the gastroenterostomy.

The more common reasons found to result in failure to secure good results in a gastroenterostomy might be summarized to be (1) faulty location of the anastomosis, (2) improper selection of suture material, (3) inadequate treatment of the ulcer itself, (4) failure to positively identify the ulcer under the supervision of sight and palpation, before completing a gastroenterostomy, (5) the subsequent development of malignancy in the scar of the excised ulcer.

As to the location of the anastomosis, it might

be stated in a general way, that the nearer the pyloric ring, the better and more normal will be the functional result, it being understood that the opening is to be made in the posterior wall of the stomach and the anastomosis to be made in the first few inches of the jejunum. Many efforts to block the pyloric opening have been made. This procedure is not essentially necessary, as equally good results are obtained where no attempt at closure of the normal opening is made, except the necessary constriction produced in the excision or inversion of the ulcer.

Improper selection of suture material in the performance of a gastroenterostomy is found occasionally responsible for failure. Unabsorbable sutures as silk or linen have been found after months, or as long as two or three years, hanging into the intestinal lumen from a gastroenterostomy wound, especially where they have been used as a continuous suture, and are frequently the cause of a "stitch ulcer" at the site of operation and not a true jejunal ulcer as they were formally thought to be. Selected chromic catgut should be used throughout the gastroenterostomy and if linen or silk are used, the stitches should be interrupted ones, there being no objection, that I know of, in the use of unabsorbable suture material in the inversion of the ulcer or used as an interrupted Lambert suture as the final stitch inclosing the wound after the excision of the ulcer.

At the present time there is considerable controversy as to the best method of dealing with the ulcer and it seems to me no fast rule can be established, however, it is generally safe to say if a careful and complete inversion of the ulcer is done including ligation of closely adjacent vessels will be all that is necessary. If, however, there is a history of single or repeated hemorrhages, excision preferably by the cautery or resection is the safest and most satisfactory procedure; while a pylorectomy or partial gastrectomy would be indicated, if at the operation the ulcer was found to be undergoing carcinomous changes.

As a general rule the final results in the surgical management of ulcer of the stomach, especially when located away from the anterior pyloric region is not so satisfactory as the duodenal or pyloric ulcer.

The occurrence of carcinoma in an excised ulcer following an operation happens in a comparably small number of cases, however, in more recent statistics it is found to be the cause of failure in an increased number of cases.

As to complications of ulcers the writer knows of no other surgical conditions that requires

more keen judgment and decisive action than perforation or hemorrhage. The proper discussion of the many phases of their surgical management is not within the scope in a paper of this length.

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Discussion

Dr. J. T. Strawn, Des Moines—As I came in late I heard only the latter part of the Doctor's paper, therefore it is rather difficult for me to open the discussion. However, there are a few points I would like to mention. The essayist referred to the probability of these ulcers returning after the patient had apparently been cured. It is an established fact that when an ulcer has once been present it is likely to recur. Even a surgical procedure does not render the patient immune from recurrence of the ulcer. From the medical standpoint, this is one thing that should be impressed on the patient at the very moment treatment is started. The medical line of treatment which I have followed has been the Sippy treatment. The patient should be instructed that if after the lapse of a few months his old symptoms return—that is, the distress which is relieved by eating, etc., returns, he must immediately again put himself upon the management. If the patient will just observe this instruction, at the same time letting up a little on his work, the average case will soon recover. Under such circumstances in the more severe cases it may be necessary to put the patient to bed, but ordinarily it is only necessary to return to the powders and frequent feedings. If you start this plan of treatment as soon as the ulcer breaks open it will heal rapidly, and in the majority of cases finally remain permanently healed.

Dr. John E. Brinkman, Waterloo—This is truly a very important subject. From a review of our case records it would appear that ulcer cases were on the increase. The accepted etiological factor is largely

one of focal infection somewhere in the body. Can it be that the mode of present day living is making us more susceptible to the particular type of infection that causes gastric and duodenal ulcer, or is this increase more apparent than real? It may be that the fact responsible for this apparent increase is due to more elaborate technic in the way of laboratory equipment, and also because in these days we have the assistance of trained roentgenologists who can demonstrate to us positively in 80 to 90 per cent. of cases whether or no an ulcer exists. I do not mean that everybody who has an x-ray machine of the latest type is capable of telling us whether or not an ulcer of the stomach or duodenum is present in a given case; I feel that it takes the trained roentgenologist, the man of large experience, to be able to differentiate between some of the reflex stomach symptoms the result of disease of the pancreas, the gall-bladder, appendix, and other conditions, from those due to gastric or duodenal ulcer. Most of us are mentally lazy, and, to use an army expression, we like to "pass the buck." In other words, when we have a patient with apparent symptoms of gastric or duodenal ulcer, without taking the time we should take to work this case out ourselves, we send it to the x-ray man and put it up to him to make the diagnosis. The roentgenologist should confirm our diagnosis and not make it, though there are cases which often give rise to sudden grave complications without any previous history to indicate their presence. In this connection, Dr. L. J. Hammond of Philadelphia reports fourteen cases of acute perforation of the duodenum occurring in the last two years not one of which had any symptoms of ulcer—there was not a symptom elicited that would lead the internist to believe that any one of these fourteen cases had an ulcer, yet they all had acute perforation and came to operation, thirteen perforated while the patient was performing his usual vocation and one while asleep in bed. It is a peculiar thing that a large number of these cases perforate while the stomach is empty. I do not know why that is. With your permission I will report a case, although I do not know whether I should congratulate myself or offer an apology. Some years ago I had a patient who exhibited the typical symptoms of gastric ulcer. It was before the days of the x-ray, at least before it had proven of any great value. The patient received a sudden jolt while riding on an elevator, following which she was immediately seized with epigastric pain, suffered shock, and had every evidence of ruptured stomach. I saw her about four hours afterwards, and the diagnosis of ruptured stomach had already been made. She had eaten hardly anything that day, so we felt that there could not have been a great deal of soiling of the peritoneal cavity. Of course, the logical thing to have done would have been to open this case immediately, but she was in such a degree of shock that immediate operation did not seem advisable. And as there was no evidence of hemorrhage we played a waiting game simply because we were afraid to go in for fear she would die

and we be charged with her death. She developed a peritonitis. I fed her entirely per rectum for ten days, giving not even a drop of water by mouth. The acute symptoms gradually subsided, and at the end of that time we could elicit a little soreness at the left of the median line. Administering a small amount of anesthetic, I opened down on an abscess that nature had been kind enough to wall off, put in a drainage tube and the girl recovered. Several years afterwards she developed symptoms of obstruction. She then lived in Minnesota, and came back for operation. Upon getting in I found a large cicatricial scar at the site of the previous perforation, with contractions that had made practically an hour-glass stomach. That portion of the stomach beyond was enormously hypertrophied in its efforts to force things through. I did a posterior gastrojejunostomy. She recovered and has remained well since. This case shows that we cannot say definitely that anything is impossible. Here was a girl whose stomach perforated and who was not operated on until ten days afterwards, but who made complete recovery. I do not quite agree with the Doctor that it is an easy thing to see an ulcer when you get in. Thirty-three per cent. of cases are reported to be complicated with chronic appendicitis, and sometimes we may confuse conditions and think the trouble is entirely an appendicitis, and as a result overlook a small ulcer which may be difficult to detect because of its size, lack of induration, etc. It is not so easy to locate the ulcer, particularly if you have not had the patient radiographed, your diagnosis confirmed and the ulcer definitely located. If the roentgenologist says the lesion is located at about a given portion it aids you greatly in locating the lesion. In my opinion we should not consider that all cases are cured or even relieved by simply doing a gastrojejunostomy. The best abdominal surgeons in the country do not claim to cure or relieve the condition in more than 96 per cent. of duodenal ulcers, and 85 per cent. in gastric ulcers. If in the hands of a master surgeon that is true, we must not be too hasty to say that all cases are surgical. Regardless of the fact that we believe duodenal cases are not as a rule cured medically, there are exceptions to all cases, and I believe that occasionally a duodenal ulcer will be cured, especially if you give the alkaline treatment and every night wash the stomach with a soda solution until there are no remnants of food left, which gives that stomach and duodenum physiologic rest for the next twelve hours. Under this treatment I have had cases with every evidence of duodenal ulcer, both from a clinical viewpoint and from a most careful x-ray done by one expert in this particular type of cases, and to all intents and purposes, so far as further clinical or x-ray evidence was concerned, have entirely recovered.

Dr. D. C. Brockman, Ottumwa—I feel that this subject is too important to let go by without thorough discussion. Every doctor in this room has treated patients with gastric ulcer. In three-fourths

of the cases the condition has not been diagnosed. Why? Simply because the doctor did not pay attention to the symptoms. In 80 to 85 per cent. of gastric cases, if fully investigated and correctly analyzed, the symptoms will tell what is the matter. The patient does not care what caused the gastric ulcer—he wants to be cured. But before a cure can be effected the case must be diagnosed. If the patient is spitting up sour stuff and has pain which is relieved by partaking of food, he probably has an ulcer. That is a good foundation for diagnosis of these cases. If the food relief lasts from one to two hours the case is probably one of gastric ulcer. If it lasts from two to three hours it is probably a duodenal ulcer. There are some exceptions, however. Why does food give relief? The stomach that has an ulcer of its walls is painful when an acid reaction is present. When you overcome the acid condition pain is relieved, food relieves it. It is very much better to relieve it with alkalies than with food. Divide your cases of gastric and duodenal ulcer into two groups, the young and the old patients, and you will have a rational basis for treatment. The patient under forty is a medical case and will probably be cured by medical treatment. Cases over that age are not so likely to be cured under medical treatment. Why? Because the ulcer in these cases is of a different class. As the last speaker said, not all cases of gastric ulcer are cured by surgical intervention. The older the patient the less the hope of cure. Simply relieving the pain and getting the patient over one attack does not mean that he is permanently cured. That patient must always be watched because he will probably have recurrence. But if you will keep the stomach free from acid the ulcer has a chance to heal. No ulcer will heal in an acid medium. Keep the stomach free from acid by giving a diet that is not irritating. Some one says to let the patient go about as usual. In my opinion a patient with gastric ulcer has no business to be out of bed until he has obtained relief. A patient with gastric ulcer must have so low a diet that he is not able to work. Put him to bed, give him milk in small quantities often repeated, keep the stomach free from acid by the administration of soda, magnesium and bismuth, and in two or three weeks increase the diet. But the patient must remain in bed if he hopes to be relieved. Then again, do not treat cases of gastric ulcer too long. Treat them properly, and if they are not better in from four to six weeks they are surgical patients and should be turned over to the surgical side.

Dr. J. W. Rowntree, Waterloo—It was my fortune to have two years of surgical experience at Rush, where Dr. Sippy holds forth, and during that service I had opportunity to see both sides of this question. During 1913-14-15 I had taken some training in x-ray work in pathology, and there seemed to be a field for correlating the findings. I quite well remember seeing in those days several cases in which it was said there was no evidence of duodenal ulcer, in

which the internist had stated there was no ulcer, where mummification had taken place. In many cases we were correct, in other cases a condition existed which simply caused irritation, but often the pathology in the case was a chronic appendix. While quite naturally I was at that time filled with the surgical side of the subject, I was also anxious to see the medical phases of the question. Under the enforced alkaline treatment Dr. Sippy was able to dispose of gastric ulcers penetrating as deep as the circular fibres, in from four to six weeks. I have nine lantern slides of x-ray pictures taken before and after treatment which will verify this statement. I also have lantern slides to show that in some cases he was treating carcinoma for ulcer. And this issue I would like to bring up in connection with those cases in which the doctor depends upon a content acidity, distress, etc., for his diagnosis, controls his own material and has his diagnosis not confirmed by surgical operation, in my experience making many blunders. In other words, the same cases which go to the Mayo Clinic and in which it is said—there is no evidence of an ulcer in this case. In one case I went to Chicago and they said there was no ulcer, the x-ray did not show it. It proved to be not an ulcer, but a case of fibrosed gall-bladder and chronic appendicitis. Then there is another thing the surgeon must learn from the internist: That with the enforced alkaline treatment ulcers can be disposed of in a short time. But make the correct diagnosis! Do not say that all cases of acid distress are due to raw spots, because they are not. But gastric ulcer on the lesser curvature, with a gastro-enterostomy or under alkaline treatment, does well. But leave the gastric ulcer alone if it is not perforating. I can show you slides of cases in which the ulcerated area has filled in under the enforced alkaline treatment and there was nothing to show that any pathological lesion had ever existed, the patients gained fifteen to twenty pounds and were well. This result was achieved in from four to six weeks under enforced alkaline treatment. As regards duodenal ulcer, I do not feel so enthusiastic over the alkaline treatment in those cases. It seems that the lower end of the stomach is subject to more reflexes and it is difficult to get the meal through even under the best alkaline treatment. However, I have seen Sippy take cases of retention of half the food after six hours, and cure them. But in these cases the ulcer seems to recur. As to differential diagnosis, at Rochester we were with few exceptions able to differentiate between chronic cases and malignancy. By means of the microscope it is a simple matter to detect early malignancy. The hospital reports show that there were few mistakes in the differential diagnosis between these two conditions. Therefore the alkaline treatment can be safely instituted in cases of gastric ulcer. The great issue with the man who bases his conclusions on the symptoms alone is that he is not making the correct diagnosis. I have seen Dr. Charles Mayo find ulcers which were the merest

slits, and many men can find the same. If a surgeon can take these cases and say definitely that he finds no ulcer after turning up the posterior lip of the pyloric end of the stomach and going over it, he should be given due credit, for it is the only way.

Dr. C. E. Dakin, Mason City—I want to talk first about this question from the standpoint of the general practitioner, which Dr. Sanders took up at the beginning. As Dr. Brockman stated, gastric ulcer can in the majority of cases be diagnosed from the symptoms. I think that 85 per cent. of the cases should be diagnosed by the general practitioner because they can be diagnosed by the symptoms. We may add to this percentage those cases that can be diagnosed by the physical findings. The laboratory and x-ray examinations are exceedingly important, but they are only confirmatory. In 85 to 90 per cent. of cases the diagnosis can be made closely enough so that treatment can be based on the history and the physical examination which the doctor makes. The laboratory diagnosis and the x-ray findings are, of course, questions for the specialist, but this other work can be done by the general practitioner even out at the cross roads. The principal trouble in those cases that come to us is that they have been continued under some sort of treatment too long and the diagnosis has not been made. The general practitioner can treat these cases almost as well as any one else if he will put them to bed and keep them there and go on with this routine. It is easy to do that in a hospital, easy to put them there and give orders that will be carried out, and it can be done in the average home if the patient is a man who has a wife that is ordinarily intelligent, because she can handle him and make him obey orders. If it is the wife who has the ulcer it is harder because she is in bed in her own home and persists in trying to run that home while in bed, and this does not work in gastric ulcer any better than it does any place else. She should be in the hospital, but with the husband it is easier to accomplish these things. It is not necessary to go into the details of treatment. Dr. Brockman has in general outline given the technic and it can be carried out anywhere and is very successful. The thing, of course, that you have to impress upon these patients, whether you are giving medical treatment or whether your medical treatment does not work out and you do a gastro-enterostomy or something else, is that they are liable to have a recurrence, because I believe, as most of you do, that the big thing in this condition is the question of focal infection. So if you are going to cure these ulcers it is necessary to go back to the original focus of infection and clean that up. Clean up the tonsils, the teeth, the rectum, and get rid of this focal infection and you will not have recurrence. This is an exceedingly important subject. As the surgeon sees this problem, there come to him cases of gastric ulcer which, had early diagnosis been made by the doctor who first saw them, would have been in much better condition. Clean up the sources

of focal infection, make the diagnosis, put the patient to bed and then carry out this little system of medical treatment, seeing to it that every detail of this system is perfect. Learn what should be done and you can do it as well as any expert. Then if you do not get the desired results refer the case to the surgeon, and after operation has been done you must carry out more or less this system of medical treatment, when you will get good results in the end.

Dr. William Jepson, Sioux City—I really have no reason for addressing you except that from a pathological standpoint I wish to raise the following question: It has been stated by a couple of the gentlemen who have discussed this paper, and in fact the point has crept into the literature, that there is a tendency to recurrence in cases of gastric ulcer. I want to ask this question: In those cases in which, by reason of all the symptoms of which the patient complains, and especially when confirmatory x-ray evidence is added, you recognize the presence of an ulcer, when following treatment these symptoms are gone, are you sure that ulcer is healed? Are you sure that that patient for the time being did not have that degree of anesthesia of the nerve endings in the floor of the ulcer by reason of the cell infiltration so that he does not have pain? How do you know that the cessation of symptoms is not due to the fact that he has simply gone on and given special care in the matter of diet as to quantity, quality and manner of taking, and to his general state of health, and that because of this he is free from subjective symptoms and is apparently well? I am sure a lot of you surgeons who sit here know this to be the fact. You know that patients with ulcer have gone around for months and years while gradual perforation and destruction of the gastric wall were taking place, with the formation of adhesions to the liver, to the gall-bladder or other structure, and to the peritoneum particularly, and yet those patients have actually felt well. Now, if such a patient with gastric ulcer had comfort, this fact would seem to have an important bearing on the matter of treatment. Personally I do not believe that all gastric ulcers are surgical. In other words, never go in when there is not that degree of induration of the gastric wall which would prevent repair. It has been stated this morning that sometimes we cannot find the ulcer when we have the stomach exposed. When we start out to operate for anything we are anxious to find it, and sometimes we do think we find small lesions in the mucosa. When we open the abdomen in the expectation of finding a gastric ulcer which would justify us in operating, and we do not find a degree of induration that is palpable, I question whether we have any right to operate at all except in the instance of hemorrhage. In other words, I conclude that I have made a mistake. And I go on and try to find little solutions in the continuity of the mucosa that would excuse me for my error. Some cases of gastric ulcer are medical. The manner of taking care of these patients while under treatment has been covered. If

that ulcer is chronic, let us not delude ourselves into doing what I believe to be a criminal act—merely saying to the patient, because he feels well and is apparently all right: "You are now well," only to have him perhaps return in a year or two with recurrence, or there is finally a cancer.

Dr. J. F. Herrick, Ottumwa—This is certainly one of the most important topics that could come before any medical convention and one that has interested me very greatly. I am not certain that I can agree with many of the things that have been said, not here alone but in the literature, on gastric and duodenal ulcer. The cause of these conditions is not definitely known. May not focal infection play the same part in gastric and duodenal ulcer that it does in the old chronic ulcers of the shin, being secondary to a condition of disturbed circulation in the part, i. e., secondary to some other cause? Personally I feel that infection is a secondary cause in gastric and duodenal ulcers. Then, of course the question arises, "What is the primary cause?" While disturbed circulation is the cause of chronic ulcer of the leg, we know that the direct cause is usually varicose veins or something of that nature. In case of ulcer of the stomach or duodenum the cause is not so clear. There may be different causes, as for instance ptosis. The dragging of the stomach and duodenum on their blood supply and on their venous return, and in that way bringing about a condition very similar to that which obtains in leg ulcers. If that is true you will say, "Why not an ulcer in the fundus of the stomach more commonly?" We have in the pyloric region an irritating factor, or a digesting factor if you wish to put it that way—the acid gastric juice. As another cause of faulty circulation may be mentioned local ischaemias in the pyloric and duodenal region as a reflex from chronic disease of the appendix and gall-bladder. All are familiar with the acute ulcers of the duodenum resulting from extensive burns of the abdomen. As to the treatment, I am a believer in medical treatment, in the acute cases especially, to such time as it is demonstrated that relief cannot be had by this means; then surgical intervention, without a promise of complete cure in any case and with a warning as to the possibility of recurrence from the same cause that brought about the trouble originally. The first thing of course is to look for the cause as ptosis, chronic appendicitis, etc.

Dr. C. P. Howard, Iowa City—I have absolutely nothing to add to what has already been said in regard to either the medical or the surgical treatment of gastric ulcer. I feel, as do you all, that it is largely a medical disease; that certainly 75 per cent. of the cases respond to proper medical treatment, and that possibly as large a percentage as 25 sooner or later come to the surgeon. It is our practice, of course, to carry out all the laboratory tests, then try to fit the findings in with the clinical history. Very often we find that the laboratory tests do not coincide with the history, in which event we are very much more apt to pay attention to the clinical his-

tory than to the laboratory findings. Personally I have not such great faith as one of the speakers evidently has in the absolute diagnostic value of the x-ray. We have all had our experience with x-ray pictures in these cases, both pro and con; it is not uncommon to have a filling defect in a skiagram reported, but the surgeon may search in vain for the ulcer. I feel rather that it is a weighing of niceties in diagnosis, and often the niceties are very difficult to weigh. There is no question in my mind but that radicalism in either direction is wrong, as in everything, but particularly in the treatment of ulcer. And it seems to me to be a good, safe rule that, as outlined by Dr. Brockman, if a case at the end of four to six weeks has not responded to proper medical ulcer treatment, it is surely time to turn the case over to the surgeon provided the clinical diagnosis of ulcer in the case under observation has been confirmed. Many of these cases that you have surely thought were ulcer, were not, and I think it was Sippey who laid down the aphorism that you cannot cure an ulcer unless you have one. So if at the end of four to six weeks the symptoms are not benefited by antacid treatment and regulation of diet it is just possible you have made a mistake in diagnosis, and we ever so often (probably more often than not) have to change our opinion of the case. But provided, under medical treatment, the symptoms have persisted and the evidences of repeated x-ray examinations are confirmed, together with the laboratory findings and the finding of the hyperacidity of the gastric contents and occult blood in the stools, it seems to me wise to turn the case over to the surgeon and have a gastroenterostomy performed. However, the treatment of ulcer is largely an individual matter. Medical treatment first and then surgical intervention would seem to be the proper rule to follow.

Dr. Sanders—In an effort to conclude this presentation I want to thank you for your very careful, painstaking and efficient discussion. As a matter of acknowledgment to Dr. Howard I want to say that some five or six years ago I became indebted to him for his positive ideas on medical treatment. The point I wanted to bring out in the paper was this: If surgery does not give absolute immunity or perfect cure and treatment subsequent to operation can continue a patient in good health, as the gentleman from Waterloo showed you so ably, why isn't there something that we can do before operations are necessary that will make the patient able to avoid, or to escape, operation? Dr. Dakin, whom I also revere as a painstaking student and a man of ability in research work, has given you his ideas of focal infection. However, I recognized that possibility early, as I told you in the paper some twenty years ago; but I did not have it down as nice as you have it now. There is a class of cases which I think are sufficiently positive that they would not admit of a doubt in the diagnosis, which seem to come from infection rather than from a neurosis. I want to be

brief in this. The one patient I referred to who refused operation and recovered had a disappointment in regard to a child's work at school. And an examination of the contents of the stomach showed that hyperacidity, acid concentrates, followed this woman's mental condition in from four to six hours to a very high degree, a degree that could be considered pathological. And I am now a little bit careful, before telling a patient to have all his teeth extracted and his tonsils removed as a cure, to see whether there is a nervous condition that needs attention. Many of these nervous patients (I say many—many for a person of limited practice and experience) I have found are greatly benefited by a change of environment. Get them away from the point of irritation. But when the x-ray shows a dead tooth with a blind abscess or a tonsil full of pus, I do not think there is any question as to what to do.

EPILEPSY*

EDWARD M. WILLIAMS, M.D., Sioux City

In considering the subject of epilepsy I do not wish to more than refer to the groups of cases secondary to syphilis, alcohol, lead, infectious fevers, and other toxæmias, local injury or intracranial growths, but simply the genuine or idiopathic type with such conditions as closely resemble it. Hippocrates wrote about this malady nearly 500 B. C. and Lucretius in his "De Rerum Natura" described an epileptic seizure in a most masterful way.

This disease was called *Morbus Sacer* or Sacred Disease on account of the frequency of its occurrence among the priesthood and the superstition connected with it. Also due to this same superstition, and owing to the fact that the activities of an assemblage of any kind were interrupted during any epileptic seizure this trouble was early called "*Morbus Commitialis*" or disease of assemblages. Falling sickness is another of its frequently used names.

A most interesting feature is the supposed connection of epilepsy with genius, some writers classifying the two as very closely allied degenerative processes. The pathological process causing the excessive motor energy is by some supposed to be the exciting cause of the mental energy displayed by genius. While epilepsy can exist without serious mental impairment this is most uncommon and might cast doubt upon the presence of genuine epilepsy in many of the cited cases. In fact the diagnosis of this condition was rather undeveloped at these early periods and the

*Presented at the Sixty-Eighth Annual Session, Iowa State Medical Society, May 7, 8, 9, 1919, Des Moines, Iowa.

reported cases could have been due to organic disturbances of some type or even of a hysterical nature. Certainly no marked celebrities have been noted among epileptics during the period of the excessive use and abuse of bromides following its introduction by Locock about 1857.

Among the numerous instances of an epileptic condition in prominent men were Julius Caesar, Petrarch, Moliere, Flaubert, Charles V., St. Paul, Handel, Peter the Great, Mozart, Schiller, Alfieri, Mahomed, Paganinni and Richelieu.

Paganinni was even cataleptic. Pascal had epileptic vertigo. Socrates danced and jumped about the streets without reason. Richelieu in a fit believed himself a horse and jumped about and neighed and knew nothing about his behavior at the time.

A number showed distinct signs of cerebral irritation leading probably to the theory above mentioned. Among these Dr. Johnson, Santeiul, Crebillon and Lombardini exhibited most remarkable facial contortions. Chauteaubriand had convulsive movements of the arm, Napoleon had habitual spasm of the right shoulder and lip, in these cases the motor symptoms were more active during any mental activity.

Anne Lee founder of the sect of Shakers was an epileptic and a number of religious reformers have been epileptic and obtained their ideas from visions during their pre or post paroxysmal periods.

The religious sect of the Siberian Shamans are mostly epileptics or of epileptic families.

The recognition of genuine epilepsy is sometimes most uncertain even in cases of a true organic nature. Hystero epilepsy, in reality a purely hysterical affection, is often differentiated from the genuine epilepsy with exceeding difficulty and the psychasthenic and affect forms add even more confusion.

The symptomatology of a classical case need scarcely be referred to, yet I have seen frank instances of hysteria and of simulation almost identical in their symptomatological resemblances to a true epilepsy. Voiding urine and loss of control of the sphincter, frothing at the mouth and biting the tongue formerly supposed to occur only in the genuine cases have frequently been found in the hysterical and the simulated. The loss of consciousness, the most important of all the symptom groups is very difficult to determine positively, particularly if only fleeting in character. A real epileptic unconsciousness does not usually extend over a period of a quarter or a half hour. The pupils in a genuine affection during the loss of consciousness do not react to light.

Adrenalin dropped into the eyes show active dilatation or contraction in one or both pupils in about half the cases during or immediately following a seizure and this does not occur in the interparoxysmal period nor in individuals without some sympathetic disturbance.

Often following a seizure there is a disturbance of the deep tendon reflexes and the Babinski pathological sign may be present.

Clark has mentioned an epileptic voice sign of considerable interest and importance manifested by a peculiar lack of proper inflection. The normal rise and fall of the voice in using vowel sounds is not present and you get a peculiar monotonous speech called plateau speech; this characteristic speech occurs early, often considerably before any mental deterioration.

MacCurdy has spoken of attacks of temporary aphasia in epileptics very similar to those occurring in paresis, a symptom rarely if at all referred to by other writers.

The peculiar states of mental aberration occurring just preceding or following a convulsion are most important on account of the possibility of the patient injuring others or himself at such times. These periods may take the place of a convulsion, being the so-called psychic equivalent and are then particularly of note in their relation to medico legal problems. The amnesia during these intervals is in most instances absolute though occasionally there may remain a vague and hazy remembrance of some of the happenings during these periods.

While their duration is, as a rule only a few minutes, sometimes it may extend to days or weeks. The usual life routine may be carried out during these periods but often some murder or other crime is committed; in fact murders of the most horrible and brutal kind are the occasional occurrence during these intervals of epileptic unconsciousness.

Temporary states of depression, delirium or confusion, religious exaltation with hallucinations such as hearing voice of God. Religious visions are quite common. Periods of irritability may occur with hallucinations of hearing particularly and it is a question whether these interparoxysmal conditions are not also psychic equivalents. Several writers, among these Clark, MacCurdy and Jelliffe have considered epilepsy from a psychological standpoint taking up the constitutional, hereditary and psycho analytical aspects of these cases. The best descriptions of the epileptic character is given by Clark and MacCurdy, these writers having had the opportunity of studying several cases for years before the development of

convulsions. Probably the most conspicuous features of the epileptic mentality are the excessive ego, and the lack of development beyond the primitive instincts.

"It was found that the potential epileptic, as a rule, possessed a supernormal output of energy which was constant and fairly productive of good developmental results as far as the organic make-up was concerned. There was a poorly repressed or thinly inhibited outcropping of the egotistical tendencies. These characteristics of a pathological self love were far beyond the bounds of a purely physiologic variation. As a rule the potential epileptic was illy adapted to his environment and could not easily change the same. He cooperated badly in social and economic settings. For the most part he was frank; the subtleties of mind were not his; on the contrary he had a simple childlike pattern of emotional life. He never had the scruples or doubts of the obsessive neurotic; not being hindered with the inhibitions and prohibitions of the latter class, he was often permitted to become engrossed with lower animal instincts and passions, with the inhibitions reduced and with an over emphasized estimate of his own importance and ability, the potential epileptic found himself in constant conflict with the outside world. While the normal individual had his infantile struggle with reality and made life a compromise, the potential epileptic youth kept up the baffling struggle; hence his deep-rooted dislike and even hate of the outside world. Individuals who possessed the epileptic constitution lacked real general interests. The libido was rigid, self-centered and crude. There were small religious promptings; the meaning and ends of life rarely engrossed the potential epileptic. His friendships were perfunctory; the egotistic traits prevented a free range of emotional expression.

A parental attachment of the potential epileptic to his own sex was the rule and this was especially marked in girls. The love fixation to the mother in the majority was prominent more or less throughout life. The potential epileptic's attitude toward the opposite sex was very significant: it rarely possessed the higher love attributes and more frequently evolved little beyond the simplest or grossest sexual demands. That fact alone, independent of the superadded convulsive disorder, made marriage among epileptics almost invariably a failure."

The importance of this peculiarly primitive disposition will be shown in the later consideration of the etiology of the attacks.

Jelliffe working along a psychological basis has divided the attacks, which he claims are simple

abnormal outlets of energy, into different higher or lower levels—psychic, sensori motor or physico-chemical. The hysterical convulsion offers an example of a high level convulsive type of reaction. This seizure is psychogenic in origin and presents a conversion of psychological into physiological symbols. Psychasthenic convulsions of the compulsion neurosis type described by Oppenheim are of a lower psychic grade.

The affect epilepsies described by Bratz and Leubuscher resemble more the deeper epileptic attacks but still belong to the psychological level. Here there is lack of adjustment to a very disagreeable situation or environment. They may become hallucinatory and amnesic though not absolutely unconscious. According to Jelliffe these cases are more closely allied to epilepsy than to the psychasthenic types owing to the fact that they give a history of spasms in childhood, whereas the psychasthenics show compulsion neuroses, etc.

The classical epileptic, the lowest level, shows complete loss of consciousness and reduction in coordinated muscular reactions. The attacks involved the psychic and sensori motor levels and also the biochemical or physical as shown by the toxicity of the excretions.

From several years psychanalytical work in cases of epilepsy by some writers the conclusion was drawn that the epileptic attacks were forms of subconscious wish fulfillment or desire to avoid undesirable situations. A sexual element had often been found predominant, attacks ending in orgasm being reported. The Greeks called attention to certain sexual features in epilepsy and referred to coitus as a minor epileptic phenomenon.

This psychanalytical work has shown some promising possibilities even in cases with a definite organic basis.

MacCurdy speaks of the motor attacks as a reaction to some crisis and refers to the fear produced by the aura as a sufficient crisis. It is noteworthy that an aura is entirely sensory such as the auditory, olfactory, gastric, auras of which you are all cognizant.

In this relation the writer drew the following conclusions in regard to them:

1. That no primary motor aura exists in idiopathic epilepsy, all movements being apparently reactions to primary sensations.

2. That every aura is accompanied by a painful affect usually fear, directed against the convulsion which is felt to be impending.

3. That auras always occur apart from convulsions as well as preceding them.

4. That the patient always feels that if he can distract his mind the fit will be averted, for which conviction there is good convictive evidence.

5. That the symptomatology of auras corresponds closely to that of neuroses, and psychoses, occurring independently of epilepsy, so that they may not be epileptic symptoms in essence, but concurrent attacks that are psychologically determined.

Clark disregards a number of the theories of the physical origin of epilepsy. A number of the changes found in the brain are secondary to the disease rather than the cause while the chemo-toxic idea is not justified for the reason that the toxic substances formed if injected do not cause the convulsions and clinically epilepsy has not been experimentally produced by any method.

Numberless factors have been mentioned as causing epilepsy. These theories have frequently been advanced because some individual has had one or more cases get well after the removal of the particular cause in question.

Tonsils removed, astigmatism corrected, mastoids opened, anuses dilated, clitorises trimmed and excised have all given relief in certain individual cases.

Reed advanced a germ theory similar to one advanced some years ago. He states that the early investigations were disregarded on account of the jealousy of several of the well known scientists. It is scarcely to be believed that the mentality of great investigators should be so terribly warped as to overlook and ignore for years such a wonderful boon to humanity.

General cerebral gliosis, changes in the Ammon's horn, bony modifications of the sella turcica, dilated ventricles, central hemorrhage, thrombosis and arterio sclerosis have been found.

Some writers attribute the condition to the deficient ductless glands. The thyroid and parathyroid theory was refuted on account of the absence of the symptoms of deficiency but this is accounted for by the assumption that these bodies have two functions. One function relates to the control of metabolism and this being unimpaired in epileptics you need have no general signs of deficiency.

The other purpose of the thyro parathyroid glandular system is to destroy certain toxic substances in the blood and the reduction of this glandular power causes the accumulation of these toxins with the resulting convulsions.

Where there is a distinct metabolic impairment showing glandular deficiency the administration of the glandular substances, orally seems to give

relief and Bolten claims remarkably curative results in all cases by the rectal use of freshly pressed juices of the thyroid and parathyroid glands in doses varying with the individual case.

In genuine epilepsy intracranial operative procedures have generally not been satisfactory. In some cases of telangiectasis however the relief has been immediate and in several instances permanent.

I had the opportunity of observing a case of this character in consultation with Dr. Rowse and Dr. Runyon of Sioux City; the patient a young man age twenty-three years, began to have convulsions four years previously following an attack of smallpox. The seizures were of the general type occurring at monthly intervals, later becoming more frequent. When brought to the hospital he was in a condition of status having spells every few minutes and being dazed and confused between times.

In spite of the highest permissible dosage with antispasmodics the spasms continued. Owing to the constantly increasing severity and the decline of the patient's strength an operation seemed to offer the only possibility of relief. As there seemed to be a predominance of the conjugate head and eye movements in the symptomatology the main focus of irritation was suspected to be in the posterior part of the second frontal convolution. An operation here revealed a large bunch of engorged veins with appearance of a bunch of angle worms. A decompression over this area gave immediate relief with no recurrence up to the present writing. Cases of telangiectasis have been described by Sachs. Similar involvement of the deploic vessels has been observed by Hoppe. Cushing called attention to trigeminal naevi with frequent secondary intracranial complication.

Aside from the above mentioned types the general treatment of epilepsy of most avail seems to be along a dietetic and hygienic line with sufficient drugs to control the spasms.

Turner claims the best results from a purin free diet. The purin bodies being an intermediate stage of the decomposition of nucleus protein.

Such purin free foods are milk, eggs, butter, cheese, rice, macaroni, tapioca, white bread, cabbage, lettuce, cauliflower, fresh and dried fruits, sugar and olive oil.

Of course these articles are not entirely non-purin containing but are about as low as any.

The outdoor life of a well conducted epileptic colony gives probably the best results in the treatment of epilepsy; the routine life, exercise, absence of the constant feeling of being looked down upon by relations and friends and the abil-

ity to use their motor energy seems to do more for these unhappy patients than any treatment conducted at home.

The percentage of cure is dependent upon many factors such as the age of onset, frequency, intensity and so forth. The cases with psychic manifestations and with petit mal contrary to the usual idea are really the most unfavorable.

The use of serums, rattle snake venom and various mechanical procedures has been disappointing. Among the drugs bromides, luminal, chloretone and conuim have been most beneficial either alone or combined. In the use of the bromide together with the measures already given, salt should be limited in the dietary and the skin kept in perfect order by hot baths and packs and colon lavage is of great eliminative benefit.

Discussion

Dr. Frank A. Ely, Des Moines—I was very much interested in the paper which has just been presented. The history of epilepsy is exceedingly interesting, yet at the same time there are so many cases cited among the great dignitaries of the world in which the diagnosis is a trifle obscure, and so many things in their conduct which might be attributed to a psychoneurotic tendency, that it seems a little doubtful in my mind that all of these cases were true epilepsies. However, I wish to say that I believe there is a very great deal more of epilepsy in our midst than we have any thought of. This was demonstrated in many individuals put to stress in intensive training in the army, where epileptic attacks were brought out in cases in which the condition had never been suspected to exist. Another point of interest is in connection with so-called hystero-epilepsy. I remember a girl who had very peculiar hysterical symptoms of the astasia-abasia type, was fearful in moving about and would walk in an ataxic manner with limbs spread far apart for fear she would fall. We watched her for a long time thinking it was a pure case of hysteria, and finally one day when out on the lawn by the hospital she had a typical, severe, undoubted epileptic attack. The hysterical phenomena were the secondary result of her fear that she might have a seizure and fall. I wish to call attention also to a certain type of cases with which we meet almost weekly, namely individuals who are approaching, or are in the early 40's; in other words in the period of life in which we may expect the beginning of an involution process of the arterial type; individuals who have perhaps been more or less psychoneurotic in their early life, have many fears indicating such, and yet who at this period of life, begin to have attacks which for lack of a better designation we term vasomotor crises. Of late I have been carefully studying these cases and have come to the conclusion that many individuals who complain of sudden dizzy attacks but who do not necessarily have a high blood-pressure or any indication of

nephritis, have all their lives been potential epileptics, and as the involution period of life approaches and the circulation is in maladjustment in the cerebrum, any slight tensities induced by mental work and other factors do bring about conditions which we may rightly call attacks of petit mal. And of late I have followed the principle that when in doubt in connection with such a patient, treat the case as one of epilepsy, particularly in the matter of using small doses of the bromides and in directing the regimen which the individual is to follow. In the treatment of epilepsy I wish to say that it seems to me that regimen is the word which will cover the whole thing. I do not hesitate at all to use sodium bromid freely. I never use anything but sodium bromid in these cases, and I pay particular attention to the diet. The purin-free diet has been mentioned. This calls to my mind a difficulty which confronts us in arranging the diet for epileptics. Many epileptics suffer from a marked mucus colitis, the best treatment for which, under ordinary circumstances, is a diet in which the various albumens predominate. Such a preponderance of albumen would necessitate the ingestion of a considerable amount of purin bodies, therefore one is in a dilemma of no little consequence. I have followed the rule, in such cases, of prescribing the diet which seemed to cause the least abdominal reflex irritation. Where no colitis exists, I limit the albumens as a routine measure. In epilepsy, as well as in most other illnesses, we are treating patients as well as illnesses, and good judgment with regard to the diet is required.

Dr. Murdock Bannister, Ottumwa—As the hour is late, I simply wish to compliment this highly scientific paper. At the same time I would remind you that we are all potential epileptics—I think we will admit that. There are none of us but can be made epileptics with the proper stimulus, we lean to idiopathic epilepsy and to epilepsy caused by some special irritation and epilepsy preceded by an aura. Some of us are filled with high explosives, we go off in general under the stimulus of a small and insignificant impulse, while some others of us need the old-fashioned percussion-cap to set us off. But there is no definite line between idiopathic epilepsy and epilepsy caused by trauma. I would not wish to try to abolish the distinction which has been made simply as a means of convenience, but it is not a scientific distinction.

Dr. Nicholas M. Alter, former assistant to Professor Lenhossek and also pathologist to Dr. Howard Kelly, Baltimore, Maryland, for a period of over five years, and to Yale University Department of Pathology for the past year, has associated himself with the Blumberg Biological Laboratories of Omaha.

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COMPULSORY MILITARY TRAINING

Among medical men there is but little difference of opinion as to the value of compulsory military training, not so much for the purpose of making soldiers as for the purpose of bringing about better physical conditions. We gained much information during the draft period of the physical condition of our young men, knowledge of a kind that was limited almost entirely to physicians who had large experience in examining candidates for employment in certain transportation companies for special service. Even these medical officers could secure information only of a limited class, such as were candidates for rather strenuous employment.

The examination of several thousands of young men for railway service, showed about 14 per cent rejections, and an examination of 1700 for military service, as they came, showed a rejection percentage of nearly 30 per cent. The examinations were quite the same. The examination developed two important facts; the number of young men physically unfit for active service or employment and the nature of the disqualifying defects. This information suggested the remedy for a large number of defects, which would not or could not be remedied if left to themselves. Compulsory military training would reveal the physical defects of all young men from eighteen to twenty years of age examined and put in training. In many instances the training would be a sufficient remedy, in others a treatment would be suggested

subjecting the young man to a treatment which would not be an encroachment on his individual rights.

Nearly every military officer is of the opinion that young men of military age not disabled by some congenital defect or acquired deformity will be greatly benefitted by the character of a military training, not alone by the nature of the exercises required, but also by the orderly and sanitary manner of living. The numerous young men who spend a large part of their time about billiard halls and loafing about the streets would in many instances gain an incentive for better things.

It is unfortunate that a certain number of opponents of military training resort to arguments drawn from unsavory occurrences in which a few disorderly soldiers participated. It is not fair to cite the disordered conditions following the Thirty Years' War in Germany or the disordered conditions that follow all wars in which not only soldiers, but all classes participate, when all discipline is relaxed.

It is also known that when strikes occur the principle rioters are not the strikers or the soldiers called to maintain order, but a certain disorderly crowd of undesirable "citizens" from every direction.

One Prof. E. C. Rowe has criticized General Wood, who is a medical man—and knows the needs of young men—and is a soldier, because he advocates general military training. This man in support of his contention that military training leads to disorder and lawlessness, cites the Thirty Years' War and could easily have included the numerous wars in Italy and other parts of the world, when hired professional soldiers were employed, who were quite willing to fight on either side and frequently changed side in the same campaign. It is not true to say that the citizen soldiers of the Civil War returned to their homes after years of service to their country with an "exaggerated conception of force that follows large and rather extensive military training and military experience." Nor was it so following the Spanish-American War.

The moderate amount of military training advocated by the military bill before Congress will fall far short of creating professional soldiers, and the fears expressed by some of our newspapers (Des Moines Register and Leader, for instance) are simply ridiculous. These people should fear the training and discipline of policemen and firemen as a menace to our safety. It would appear that military training in our colleges and our military schools are dangerous to

security; that "discipline" in our homes should be abandoned; that policemen and firemen should be relieved of "discipline" and let us resort to tracts written and published by our fearsome citizens on how to be good and how to perform our duty and "to learn to hoe corn, to box, to mend shoes, to vault a pole, to swim, etc.;" this would be a safeguard to our liberties.

The matter is so closely influenced by politics that it is proposed that further consideration of the matter be postponed until after the next presidential election.

FULL-TIME STATE MEDICAL SERVICE IN ENGLAND

At a meeting of the Marylebone branch of the British Medical Association held January 16, Dr. C. O. Hawthorne presiding; Dr. Hawthorne said, "that such a discussion was appropriate to the day and hour for circumstances had compelled the consideration, or rather the reconsideration, of the form and fashion in which the medical profession could best discharge its responsibilities as the director and promoter of public health. Some changes in this direction had already occurred and other changes were on the horizon. One of the changes proposed by certain members of the profession who had given considerable attention and study to the issue was that no satisfactory position would be attained until the government established a whole time State Medical Service corresponding to other public service in the country."

Professor Benjamin Moore opened the discussion in support of the formation of a State Medical Service, said "that underlying the whole question was the advance which medical science and the medical profession had made in relation to the health of the country. If national medical service was going to be bureaucratically administered, the medical profession being paid servants, he would have none of it." What he had in his mind was a system something on the lines of the old guilds, the management of which would be in the hands of the members of the profession.

Sir Wilmot Herringham opposed the idea of a State Medical Service; so did Dr. B. F. Hartzhorn, Dr. R. Fielding-Oulde, Dr. A. G. Auld, Dr. Alexander Blackhall-Morrison, Mr. C. A. Parker and Dr. Beddows. Sir Watson Cheyne, M. P., doubted the advantage of a State Medical Service both to the public and to the profession. The greatest objection being the fear that the service would be bureaucratically administered and that the medical profession would be the paid servants of the public.

REPORT OF THE NINTH MEDICAL CLINIC OF THE COLLEGE OF MEDICINE, THE STATE UNIVERSITY OF IOWA, FEBRUARY 4 AND 5

The recent meeting of the Medical Clinic marked an epoch in that the last one immediately preceding it occurred April 17 and 18, 1917, about two weeks subsequent to the declaration of a state of war existing between the United States and Germany. It became, therefore, practically impossible for the College of Medicine to announce annual clinics for 1918 and 1919.

Happily the war is at last ended and it became possible to announce the Ninth Annual Clinic for February 4 and 5, which proved to be very complete and helpful. The attendance of the profession was much restricted owing to the general prevalence of the epidemic of influenza which swept over the state so generally during the latter part of January and all of February.

The Clinic opened at 8 o'clock Wednesday, February 4, with a clinic for those interested in head specialties by Doctor Dean in the surgical amphitheater, extending to 9 o'clock. Immediately following same an address by President Jessup was scheduled. Illness due to the prevailing epidemic lost to the program what two years previous proved to be an inspirational beginning for the clinic held at that date.

Doctor Dean's clinic, however, proved of interest to others than head specialists, as the following schedule of cases presented by him will attest: 1. A demonstration of normal vestibular reactions including caloric and turning tests. 2. A case showing atrophy of vestibular branch of each eighth nerve, and atrophy of the right cochlear nerve. 3. A case showing labyrinthine fistula. 4. Presentation of a "Pitch Range Audiometer," and case reports in use of same. 5. An operation, tumor of the cheek.

At one o'clock Doctor Dean continued his clinic with the following cases: 1. Operations, (a) a case of bony and cicatricial ankylosis of the right temporomandibular articulation; (b) cauterization of leukoplakia buccalis; (c) esophagoscopy and radium treatment in case of carcinoma of esophagus, using the Dean esophagoscope and radium carrier; (d) a radical mastoidectomy.

Doctor Boiler followed Doctor Dean with operations: (a) cataract extractions; (b) corneo-scleral trephining, and (c) a bilateral dacryocystectomy.

From ten to twelve o'clock Doctor Wheatis presented a clinic in gynecology showing the following interesting cases: 1. An adeno-carcinoma of the fundus of the uterus in a patient sixty years old. The patient had received, at the date of presentation, twenty-one hundred mgm. hours of radium by intra-uterine administration. She had received, following the foregoing treatment, ten x-ray treatments each of ten minutes duration, up to the present date. Results in the case, he reported, were very favorable. A long series of very weakening hemorrhages was brought to a satisfactory end. The second case

shown was that of a patient eighty-four years old who was admitted to the hospital with a stubborn case of squamous-celled carcinoma of the right labium majus. The patient had received, up to date of presentation to clinic, by direct application to the lesion, a total of 1,800 mgm. hours of radium, followed by five x-ray treatments, each of five minutes duration. The patient, though showing marked improvement, was directed to return to the hospital for further treatment. Third case, aged thirty-eight years, appeared at the hospital with a squamous-celled carcinoma of the cervix. She had had a vaginal hysterectomy done previously, and was returning for further treatment. She had received, to the date of this presentation, 1,850 mgm. hours of radium per vagina, with very encouraging results. The fourth case presented was a uterine fibroid, in a patient forty-three years of age. She received radium treatment at various times, totalling 1,852 mgm. hours. She entered the hospital with 28 per cent hemoglobin. This percentage soon increased to 43 per cent and rose before dismissal to 82 per cent. Her hemorrhages, which had been profuse and very weakening, were entirely arrested. The fifth case was that of a patient but fourteen years old. She was admitted with a practically uncontrollable menorrhagia, January 11, 1920. She received at once two radium treatments, of 400 to 450 mgm. hours respectively, by intrauterine administration. She was dismissed shortly afterward with the hemorrhage entirely under control.

Doctor Van Epps conducted a simultaneous clinic with Doctor Whiteis during his first hour, made necessary by the increase in clinical chairs since the last clinic held. The cases presented by Doctor Van Epps were as follows: 1. J. J., white male of thirty-nine years of age, suffering from optic tabes and intense lancinating pains in trunk and legs. Developed morphinism. Not relieved by Towne-Lambert. Rhizotomy of fourth to ninth roots for relief of pain around chest. Pains in chest and legs have ceased but has developed pain in lower thoracic distribution, possibly due to radiculitis, the result of cord manipulation. Rhizotomy for pain is always uncertain as to results. In the gastric crises of tabes the operative mortality is 25 per cent and the cures 25 per cent. Very little is published as to the effect of the operation upon the other pains of tabes. Case 2, C. B., white male of forty years, who five years ago developed cranial nerve palsies in part transitory. In a few months he developed weakness in the legs, which has persisted. There also developed weakness in the right arm, with tremor, which largely disappeared in four months. He has improved since the teeth were all extracted in 1917. At present shows a fixed left pupil, slight right facial palsy, some tremor and ataxia in the arms, marked atrophy of both quadriceps, sensory loss over right thigh and around abdomen. Knee jerks absent; plantars flexion normal. Sphincters normal, specific tests negative. Diagnosis: multiple sclerosis. Case 3. A. D. V. V., white male of forty-two years, who developed diplopia and

ataxia in 1910. Later legs became weak and stiff. In 1911 arms became uncertain and weak. Chair-ridden since 1911, and unable to feed self since 1918. Hands and feet have been numb from the first. At present there is marked spastic diplegia, and marked disturbance of discrimination, pallesthesia and stereognosis. Specific tests negative. Diagnosis, multiple sclerosis. Case 4. J. L. M., white boy of ten years. Had tonsillitis in 1916. Was in bed two weeks. Three days later had a sore throat and a slight convulsion. A few weeks later had tonsils out. After operation bled for thirty-six hours and had a convulsion. Returned home on third day and seemed all right, but did not talk or understand. Was mute for eighteen months after operation, and has not spoken a word or understood a word since, though can make a peculiar cry. Can print and read a few words, has been strong and active, plays well. There have been fifteen convulsions since operation; last one six months ago. At present the physical examination is negative, except there is no evidence of speech or of understanding, or of ability to utter words. Hearing normal. Diagnosis: auditory word deafness, with loss of articulate speech. Internal speech fair. Lesion vascular (embolic?) of left superior temporal. Prognosis, in view of history, doubtful. Treatment: special instruction.

At 1:30 o'clock Doctor Rowan presented cases in a major clinic as follows. 1. Demonstration of case of sarcoma of the humerus. 2. Demonstration with operation of a case of traumatic femoral aneurism, with paralysis of anterior crural nerve.

Doctor H. L. Beye demonstrated two cases of compound fracture, and two of bone abscess, operating upon one of them.

At 3:30 o'clock a clinic was presented in dermatology by Doctor J. B. Kessler, simultaneously with one in genito-urinary surgery by Doctor N. G. Alcock. Doctor Kessler presented the following cases: Two cases of tinea tonsurans chronica. They were of two boys, aged five and seven years. The points of interest in both were, first, the sources of infection, their caps, and, second, an apparent exception to the rule of relation of chronicity to treatment. Both cases responded promptly to x-ray treatment, which was carried to the point of inducing marked epilation of the hair, and followed by an application of tincture of iodine, and a 3 per cent ointment of ammoniated mercury. Case 2 was one of impetigo in an infant. The case showed, at time of admission to the hospital, a few discrete lesions, some exuding a sero-purulent discharge, others covered with a greenish-yellow crust. Treatment was a mild antiseptic ointment and isolation. Case 3, psoriasis in an adult male. Eruption confined chiefly to the scalp and body. Treatment by means of x-ray, short exposures, rather than chrysorobin, the usual treatment, because of the area involved. The scalp was treated with ointment of ammoniated mercury and calomel ointment. Results were very satisfactory. Case 4, papular erythema in an infant. Eruption appeared three weeks subsequent to birth,

and was more or less general. Treatment was, lycopodium one part, bismuth sub-nitrate three parts, used as a dusting powder.

The genito-urinary cases presented by Doctor Alcock were as follows: 1. Two cases of renal tuberculosis, and specimens of tuberculous kidneys were exhibited. 2. Demonstration of post-operative prostatic hypertrophy. 3. An operation of carcinoma of the prostate.

At 4:30 Doctors Steindler and Byfield were "at home" to visitors at the Children's Hospital, West Side. Since health conditions over the state made general attendance at the clinic at all well-nigh impossible, your reporter would urge practitioners to avail themselves of their first opportunity to visit this growing and deservedly popular hospital.

A smoker was held from seven P. M. to a late hour at the Triangle Club rooms, which was apparently well received by the visiting members of the clinic.

At eight o'clock of the second day Doctor C. P. Howard presented the following interesting cases in a clinic in internal medicine: 1. A case of syphilis of the stomach—very rare. The patient was past middle life in age. Special points of interest were that his age would indicate a possibility of carcinoma, even in the presence of a four-plus Wassermann. The case was referred to the department of surgery for exploratory purposes, where a lesion of gastric syphilis was discovered. The patient was returned, and put on antisyphilitic treatment. He rapidly showed signs of improvement in symptoms and weight. 2. A case of pulmonic abscess in a young woman. Point of interest was location of the abscess by "needling" the chest. This having been done, a two step operation in the department of surgery was accomplished with good results. A permanent improvement in health was marked. 3. A case of diabetes mellitus was shown, and a tabulated list of twenty-five more discussed. The chief point of interest in these cases was, of course, the diet. The proteins and carbohydrates, it was remarked, were set at a definite point, and the fats entirely eliminated. The carbohydrates were then gradually lowered until the sugar disappeared, after which both they and the fats were gradually raised until tolerance was established.

Following Doctor Howard's presentation of cases, Doctor F. J. Rhoner, of the same department, showed a very rare and interesting case of hemolytic icterus (familial). Patient a male, entering the hospital January 21, 1920. He complained of pain under the right costal margin. Five years ago he had an attack of nausea with vomiting and fever, but without pain, lasting for over a week. This was followed by pallor and jaundice. His present complaint of discomfort below the right costal margin dates from this attack. One brother, aged twenty-two, has had several spells of fever, nausea and vomiting, associated with jaundice. A sister, aged thirty, has had similar spells for years. Physical examination and significant laboratory findings were: slight icteroid hue of skin, definitely enlarged spleen, combined

excretion of urobilin and urobilinogen in urine and stools was ten times upper limit of normal, and the red blood cells showed a definitely decreased resistance to hypotonic saline solution. The blood count, however, was normal, and the blood smear showed no abnormality of the red cells. The above findings, with the very suggestive family history, made the diagnosis of hemolytic icterus (familial) quite evident. Because of the very excessive excretion of urobilin and urobilinogen, in spite of the absence of anemia at the present time, the evidence of hemolytic activity of the spleen was considered sufficient to warrant recommending a splenectomy.

Doctor S. T. Orton at 10:00 o'clock, gave a very interesting presentation of the general themes, psychiatry and psychopathic hospitals. It will be of interest to learn that very rapid progress is being made in this new arm of service to the state by Doctor Orton. He is introducing great activity in his work, and creating much enthusiasm for it. The fine new hospital which is to be next in order of building is the only thing lacking in the realization of another phase of the clinical side of teaching at the College of Medicine.

At eleven o'clock, Doctor H. Gideon Wells, Professor of Pathology at the University of Chicago, gave an interesting lecture on his "War-Time Medical Experiences in Roumania." Doctor Wells spent considerable time during the course of two years with the American Red Cross in Roumania—a borderline country—hard pressed during the latter period of the war and since the signing of the armistice. Roumania's hardships consisted chiefly of starvation and the prevalence of typhus fever, said Doctor Wells in part. Starvation resulted in, not only many deaths, but also the development of a great many nutritional diseases, especially war edema. Typhus fever, which, next to influenza, was the most serious epidemic disease of the war, played havoc with the life and military prospects of this small country. The Red Cross was able to supply liberal quantities of food, and to eradicate typhus fever. The lecture was illustrated with numerous lantern slides.

The orthopedic clinic, presented by Doctor Arthur Steindler at 1:30 in the afternoon of the second day, consisted of two operations and demonstrations of a number of cases. Operations: 1. A man of about thirty years. Arthroplasty of the hip joint for ankylosis. Cup-shaped approach used and the ankylotic hip remodeled and fascia flap inserted. 2. A child of two years. Operation for congenital dislocated hip; Lorenz method of bloodless reduction. Hip fixed in cast in abduction. The following cases were demonstrated by Doctor Steindler; three cases of tuberculosis of the spine, operated by Hibb's method; four cases of arthrodesis of the wrist, for flail wrist; two cases of arthrodesis of the shoulder, for flail shoulder; and two cases of Volkmann's contracture. One operated by tenoplasty method, and the other by resection of the forearm bone. In both cases the functional result was satisfactory.

Doctor A. H. Byfield showed the following cases in the pediatrics clinic: 1. A case of diabetes of moderate severity which had responded very favorably and quickly to treatment. 2. A case of marked marasmus. 3. A case of pyelitis. 4. A case of hereditary syphilis, showing radial scarring around the mouth. 5. A case of acute hemiplegia following typhoid fever. 6. Two cases of chronic nephritis, one with edema. 7. A case of cerebral syphilis, showing epileptiform convulsions. 8. A case of spina bifida.

A number of interesting plates were shown in the x-ray rooms of the University Hospital, covering practically the entire field of medicine which can be touched by the x-ray. The rooms have been enlarged within the last year, so the handling of patients and the exhibit of plates can be carried on to good advantage. Fluoroscopic examinations were made of a number of chests and gastro-intestinal cases. There were a very large number of interesting plates exhibited, presenting normal, pathological and anomalous variations of the accessory sinuses of the head. Many of the visiting doctors were very much interested in the stereoscopic mastoid roentgenograms, presenting the right and left mastoid stereoscopically on a single pair of 8x10 plates. The technique of mastoid stereoroentgenograms, which was worked out in the university hospital, was demonstrated, and proved to be very instructive, especially to the men who were doing the head work. There were also a number of interesting cases shown in the process of radium and roentgen therapy, as well as the results of a number of finished cases.

The visitors to the clinic were given an opportunity to inspect the recently installed electrocardiographic station, the clinical laboratories of the department of internal medicine, in charge of Doctor W. E. Gatewood, and the hospital pathological laboratories, in charge of Doctor E. M. Medlar.

C. S. Chase.

THE EARLY DIAGNOSIS OF SYPHILIS

(Edited by Lieut-Col. W. S. Conkling, Des Moines)

The following communication from Surgeon General Rupert Blue should emphasize the importance of an early and accurate diagnosis in all genital ulcers. While there is no consensus of opinion among syphilographers as to the ability of early antisyphilitic treatment to abort syphilis, all are agreed that intensive treatment before systemic infection occurs is desirable, and that cases so treated offer the best outlook for ultimate cure, while the infectious stage of the disease is reduced to a minimum.

In the case of doubtful ulcer, if the diagnosis is established by the appearance of secondary manifestations or by a positive Wassermann, valuable time has been lost. It is unusual to find the Wassermann positive before the fourth week and the highest per cent of positive reactions occur at the sixth or seventh week of the disease. In short, if we are to give our patients the best of service, diagnosis must

be definitely established by identifying the organism of syphilis from the point of infection.

To obtain accurate results from dark field illumination or staining, it should be remembered that the first few days following development of the sore, spirochaetes are present in the largest numbers. The application of antiseptics, caustics, and dusting powders, particularly calomel, will destroy the superficial organisms and result in negative work from the laboratory. The Public Health Service believes that no local application or caustic should be applied to a genital ulcer until dark field illumination or stained slides have been negative on three successive days. Treatment during this period should consist of keeping the ulcer clean with normal salt solution.

At present all commercial laboratories and most venereal clinics are equipped to do dark field illumination. In the event that a dark field is not accessible, recourse should be made to staining. Although this method is not as satisfactory as the dark field, good results may be obtained with Giemsa's stain.

Washington, D. C., December 8, 1918.

A. A. Surgeon, W. S. Conkling,
U. S. Public Health Service,
Des Moines, Iowa.

Sir: The Bureau desires to know what steps you are taking relative to the stimulation of the personnel of the clinics within your state in obtaining information dealing with the early definite diagnosis of syphilis in the initial stage, before the spirochete has spread to the ganglions near the initial lesion and before the serological reaction is positive.

It is believed that every sore should be examined carefully in order to exclude syphilis before beginning local treatment, and that each clinician should be encouraged to use the microscope in order to detect this spirochete. When a positive diagnosis is made by this means treatment should be started immediately. A few injections of arsphenamine will undoubtedly be of value in an early cure and prevent many open lesions so dangerous to public health.

As the clinic continues to grow more opportunities will be presented to the clinician to study and diagnose initial lesions, and in the interest of efficiency and economy it is thought that your attention should be invited to the above and that the clinicians should be informed relative to the Bureau's wishes.

Respectfully,
(Signed) RUPERT BLUE,
Surgeon General.

PERTINENT POINTS RELATIVE TO THE PRESENT VENEREAL LAW

A. Syphilis, gonorrhea and chancroid are defined as "venereal disease" and are reportable.

B. Cases are reported by number to the local board of health on blanks provided by the state board of health. To each blank is attached a dupli-

cate upon which the name and address of the patient is kept for the physician's retained record.

C. If the patient changes medical adviser, he should so inform the attending physician. If patient discontinues treatment before a cure is effected, and no notice is received by the physician in charge within ten days after treatment has been discontinued, a report of same should be made to the local board of health. Special blanks are furnished for the report of such cases. It then becomes the duty of the local board of health to follow up and cause such patient to continue treatment until cured.

D. The local boards of health should keep a record of all cases, forwarding the original reports to the state board of health once a week.

E. The law requires that each patient be given a copy of the law and circular of instructions. These are also furnished by the state board of health.

F. The local boards of health have full authority to take action necessary to protect the public from venereally diseased persons, administer treatment, isolate, quarantine or intern when necessary, and the expense incurred to be met in the same manner as other quarantinable diseases.

G. Unless county supervisors have previously made arrangements for medical care, the local boards of health have authority to arrange for same.

H. Violation of the venereal law is punishable by a fine not to exceed \$500, or imprisonment in jail not to exceed six months, or both. A physician is liable to the same penalty, as well as the revocation of his license, by the state board of medical examiners.

FREE HOSPITAL SERVICE

Under the Haskell-Klaus Act, indigent venereal patients who require hospital care may be sent to the State University Hospital, Iowa City, Iowa, as state cases. Following is an extract from same:

House File No. 232, Chapter 78, Acts of the 38th General Assembly

An Act to provide free hospital service and medical and surgical treatment for persons who are afflicted with a malady or deformity which can probably be remedied by such service and treatment, and who are unable to pay for the same; providing for the expense thereof; and prescribing the jurisdiction of the district and superior courts in said cases.

Be it Enacted by the General Assembly of the State of Iowa:

Section 1. General Provisions for Free Hospital Service—Whenever it shall appear to any physician, county supervisor, township trustee, public health nurse, overseer of the poor, policeman, priest or minister that there is any legal resident of his or her county over sixteen years of age, afflicted with any malady or deformity which can probably be remedied by proper care and medical or surgical treatment, if

said person, or the parent, parents or guardian, or other person having legal custody of said person, as the case may be, is unable financially to provide proper care and medical or surgical treatment, it shall be the duty of such physicians, county supervisor, township trustee, public health nurse, overseer of the poor, policeman, priest or minister to report the same to the judge of the district or superior court having jurisdiction in the county in which said person resides.

Upon the filing of such report with the judge of the district or superior court as aforesaid, he shall appoint some physician who shall personally examine said person with respect to the malady or deformity. Such physician shall make a written report to said judge, giving such history of the case as will be likely to aid the medical or surgical treatment of such deformity or malady, and describing the same, all in detail, and state whether or not, in his opinion, the same can probably be remedied. Such report shall be made within such time as may be fixed by the court and upon blanks to be furnished as hereinafter provided. It shall also be the duty of said judge to have a thorough investigation made by the county attorney of his county regarding the financial condition of the said person, or of the parent or parents, guardian or other person having legal custody of said person, as the case may be.

Sec. 2. Procedure for Admission to Hospital—Upon the filing of such report or reports, said judge of the district or superior court, as aforesaid, shall fix a date for the hearing upon the complaint and shall cause the person, or the parent or parents, guardian or other person having legal custody of said person, as the case may be, to be served with a notice of the hearing and he shall also notify the county attorney who shall appear and conduct the proceedings and, upon such complaint, evidence may be introduced. If the judge finds that the said person is suffering from a deformity or malady which can probably be remedied by medical or surgical treatment or hospital care, and that the person, or the parent or parents, guardian or other person having legal custody of said person, as the case may be, is unable to pay the expenses thereof, said judge may, with the consent of the said person, or parent or parents, guardian or other person having legal custody of said person, as the case may be, enter an order directing that the said person shall be taken to the hospital of the College of Medicine of the State University of Iowa at Iowa City for proper hospital care and medical or surgical treatment; the expense of such hospital care and treatment to be met in the manner hereinafter provided.

Provided, that no such person shall be received into said hospital of the College of Medicine of the State University of Iowa for care and treatment, unless, in the judgment of the admitting physician, there shall be a reasonable probability of such person's being benefitted by such hospital care and medical or surgical treatment.

By referring indigent patients who require hospital care to State University Hospital, Iowa City, Iowa, you not only help the unfortunate individual, but assist in building up the medical department of the State University.

The future welfare of your patient may depend upon a Wassermann test. Physicians from about one-half of the counties of the state are not availing themselves of the free laboratory service.

Iowa State Board of Health and U. S. Public Health Service Laboratories for the Control of Venereal Disease

The following is a summary of the work done by the V. D. C. Laboratory, Iowa City, Iowa, from July 1, 1919, to December 31, 1919.

Wassermann Tests.....	4838
Gonorrhea Slides.....	443
Spirochete Slides.....	2
Complement Fixation Tests for Gonorrhea.....	7
Total.....	5290

FREE LABORATORY SERVICE

Free laboratory service will be furnished to all institutions and physicians in the state by request to the V. D. C. Laboratory, Iowa City, Iowa. The following is a list of stations where Wassermann tests may be obtained. Upon request, others will be placed on the list when necessary to accommodate physicians. In the future, it is necessary that physicians pay postage on specimens sent to the laboratory. The following excerpt from a recent ruling of the post office department is quoted:

"Under the law governing the exercise of the penalty privilege, embodied in Section 496, postal laws and regulations, it is permissible for officers of the government to furnish penalty labels with return address to private individuals solely for the purpose of obtaining official information and endorsements relating thereto, such information and endorsements to be either written or printed. Penalty envelopes or labels may not, therefore, be furnished to private individuals to transmit in the mails without payment of postage, specimens for diagnosis or any other matter except written or printed official information and endorsement."

Ames—Stations, Bosworth Drug Co., Judich Drug Co.

Anamosa—Station, Reformatory.

Atlantic—Station, Leo Drug Co.

Burlington—Station, Sutter-Waldoff Drug Co.

Battle Creek—Station, Battle Creek Drug Co.

Cherokee—Station, State Hospital.

Chariton—Station, Gauss Drug Co.

Centerville—Station, McCrary Drug Co.

Cedar Rapids—Station, Mercy Hospital.

Creston—Station, Newcomb & Mathews.

Council Bluffs—Station, Frick Drug Co.

Davenport—Stations, Jepson Pharmacy, Visiting Nurses' Association.

Des Moines—Stations, Irwin Drug Co., Government Clinic, Mc Nerney Drug Co., Dexter Drug Co., Hammer Drug Co., Rexall Drug Co., Liggett Drug Co., Health Center, C. W. Rogg Drug Co.

Dubuque—Stations, Arno Drug Co., Red Cross Drug Co., Peryon's Drug Co.

Emmetsburg—Station, Bert Hughes.

Eagle Grove—Station, Wassen & Morris.

Fort Dodge—Station, Hine-Thome Drug Co.

Fort Madison—Stations, Axt Drug Co., State Penitentiary.

Independence—Station, Taylor Drug Co.

Keokuk—Station, McGrath Bros.

Keota—Station, R. R. Miller.

Mason City—Stations, Park Hospital, Micey Drug Co., Brady Drug Co., Michael Drug Co.

Marion—Stations, Owen Drug Co.

Muscatine—Stations, Snow White Drug Co.

Marshalltown—Stations, Red Cross Drug Co., Old Reliable Drug Co.

Marengo—Station, Mineral Springs Hospital.

Mapleton—Station, Burston & Babbe.

Newton—Station, Nolan Drug Co.

Neola—Station, Langan Bros.

Oelwein—Station, Wilson Drug Co.

Oskaloosa—Station, Green & Bentley Drug Co.

Sioux City—Stations, Frances Pharmacy, Moore Pharmacy, Satrong Drug Co.

Spencer—Station, Bjounstad Drug Co.

Vinton—Station, Strong Drug Co.

Waterloo—Stations, Red Cross Drug Co., Schurman Drug Co.

Waverly—Station, Stauffer & Hartman.

FREE CLINICS FOR INDIGENT

During the year 1919, clinics for the free treatment of venereal disease were maintained in the following cities:

Clinton—237½ Fifth avenue, Dr. G. A. Smith, director.

Council Bluffs—325 Wickham building, Dr. R. S. Moth, director.

Davenport—415 Lane building, Dr. R. E. Jameson, director.

Fort Dodge—21-22 Oleson building, Dr. J. D. Lowry, director.

Grinnell—907 Broad street, Dr. E. S. Evans, director.

Iowa City—State University Hospital, Dr. N. G. Alcock, director.

Marshalltown—20 First avenue, So., Dr. C. O. Callison, director.

Mason City—102 N. Washington avenue, Dr. M. J. Fitzpatrick, director.

On March 1, 1920, a clinic was established in Dubuque, 140 Fifth street, Dr. A. H. Blockinger, director. During the month of March, arrangements have been made for the establishment of clinics in

Ottumwa, Burlington, and Muscatine, in each instance, the same occupying the second floor, city hall. There remains but three first class cities in the state without clinics.

Physicians in good standing will be furnished salvarsan for treatment of indigent cases upon request, enclosing statement that patient is indigent, that no fee is being charged for administering treatment, and giving the name and address of the patient, or the number of the case.

MEDICAL NEWS

The sanitary engineer is better fitted in the study of disease preventives than are graduates of medical colleges, Dr. Victor C. Vaughn, dean of medicine in the University of Michigan, declared before the congress on medical education. Officers of the three divisions of the congress were elected at the closing meeting and Chicago was selected for the 1921 gathering. The officers are: Council on Medical Education: Dr. Arthur Dean Bevan, Chicago, chairman; Dr. N. P. Colwell, Chicago, secretary. Association of American Medical Colleges: Dr. Wm. Pepper, Philadelphia, president; Dr. Fred C. Zapffe, Chicago, secretary. Federation of State Medical Boards: Dr. David A. Strickler, Denver, president; Dr. W. L. Bierring, Des Moines, secretary and treasurer.

Because taxi drivers are charging physicians more for taking the doctor to a patient than the doctor gets for his services, physicians of Davenport will probably increase their fees.

America, with Chicago as its center, is destined to become the mecca of advanced medical education of the world, Dr. W. L. Bierring of Des Moines, Iowa, secretary of the Federation of State Medical Boards, declared before the congress of medical education. Dr. Bierring, who recently completed a study of medical education in London and Paris, said his conclusions were that in the future Europeans would have more to learn from America than Americans from the schools of Europe. Dr. Bierring's views were supported in a report presented by Dr. Louis B. Wilson, director of the Mayo Foundation for Medical Research. Dr. Wilson said that of forty-four leading physicians and surgeons who had taken graduate work abroad, fewer than ten recommended foreign training for medical students today. Dr. D. A. Strickler of Denver, president of the Federation of State Medical Boards, urged uniform national requirements for practicing medicine.

All the members of the Fort Madison Medical Association voted not to issue prescriptions calling for liquor. The physicians decided that whisky was not needed in case of illness and the entire organization pledged that no member at any time take advantage of the offer of the government making it permissible for a doctor to issue prescriptions calling for

whisky. The medical society includes practically every surgeon in Fort Madison.

Capt. Matson, who arrived at Davenport from Fort Whipple, Arizona, has taken up his duties as medical examiner for the United States Army for eastern Iowa. His office will be in connection with the Davenport army recruiting station.

Dr. Charles A. L. Reed of Cincinnati says there will soon be a physicians' and surgeons' union in this country "to protect their interests and those of the public." In an address before the Los Angeles County Medical Association he made this statement and added that "the time has come." Dr. Reed formerly was president of the American Medical Association and the Pan-American Medical Congress.

Reports filed with the state board of health show that six children died in Iowa the past few months from taking medicine carelessly left where they could get to it. Most of the mischief was from sugar coated pills which children mistook for candy. There was a time when sample packages of patent nostrums were thrown carelessly upon front steps and porches of dwellings and these resulted in so many deaths that a state law was passed making such procedure a crime.

Webster City has a new scheme for building a hospital without costing anybody anything. If that could be applied to city buildings, soldiers relief and hard roads there would be something doing everywhere.

Ogden finally has their new hospital open and ready for patients. The hospital is a community affair and the fitting of rooms and donations that came in made such a place possible.

The Denison Hospital is to discontinue the taking of patients after April first and is for sale. The present owner, Dr. Conn of Sioux City desires to dispose of it as soon as possible.

The medical and dental professions of the United States will be interested to know that the Frank S. Betz Company, of Hammond, Indiana, who recently opened a complete exposition and sales room at 6 and 8 West 48th St., New York City, have purchased the entire stock and business of the Crown Surgical Instrument Co., located at 8th Avenue and 49th St., and will retain the services of the entire Crown Surgical Co.'s organization.

With the unlimited manufacturing facilities of the Frank S. Betz Co.'s plant at Hammond, Indiana, combined with the cooperation and good-will of the Crown Surgical Instrument Company, in New York City, the medical dental professions can be assured of the very best service and the highest quality of merchandise.

SOCIETY PROCEEDINGS

Lucas County Medical Society

The Lucas County Medical Society met in regular session March 3.

The members present voted an assessment of \$1 per member to meet the expenses of the society for the coming year.

A motion was made that the Lucas County Medical Society endorse any movement to raise money and build a public hospital in Chariton. The motion was carried by a unanimous vote.

The next regular meeting will be held March 24 at the public library. On that date there will be election of officers for the year 1920.

Scott County Medical Society

The following list of fees will govern members of the Scott County Medical Society, according to a report issued following a meeting of the organization at Mercy Hospital:

Advice in office, \$2 to \$5; advice over phone, \$1 to \$2; general physical examination, \$10 to \$25; vaccination (after care regular rates), \$2; administration of vaccine, \$3; transient visit, \$5; regular day visit, \$4 to \$5; extra patient in house, \$2; first visit or single visit, \$5.

Sunday and Holidays—Visit between 6 p. m. and 10 p. m. \$5 to \$6; visit between 10 p. m. and 7 a. m., double day rates; consultation, \$10 to \$25; visits for contagious diseases, 25 per cent additional; obstetric cases (normal) \$50 to \$100; chemical examination of urine, \$2 to \$5; intravenous intermuscular medication, \$3 to \$5; dislocation large joints, recent, \$50 to \$75; anaesthetic administration, minor operation, \$5 to \$10; anaesthetic administration, major operation, \$10 to \$25.

Fractures—Small bones, \$35 to \$50; large bones, \$50 to \$200; (after care, regular rates).

Operations—Plastic operation on female organs, \$100 to \$300; laparotomy (appendicitis, etc., \$200 to \$500; radical: for hernia, \$100 to \$200; acute (single intravenous treatment, \$20.

Venereal Diseases—Syphilis (10 weeks' course of treatment), \$150 to \$200; gonorrhea (6 weeks' course of treatment), \$35 to \$50.

Country work—Regular visits, plus one and two dollars per mile, according to season, condition of the roads, whether day or night.

PERSONAL MENTION

Dr. Wendell T. Garretson, a former Henry county boy and a graduate of the University of Iowa, will be connected with the Henry Ford \$3,000,000 hospital at Detroit. Before the war Dr. Garretson went to Scotland and worked in a hospital in Edinburgh under one of the greatest eye, ear and nose specialists in the world, who took him into his hospital upon recommendation of some surgeons in Montreal, Canada, where he had worked for several years.

When the war broke out Dr. Garretson worked with the British Army surgeons, later was given a commission with the rank of captain in the American Red Cross and served in France.

Dr. W. L. Bierring of Des Moines, president of the state board of health, was elected secretary-treasurer of the federation of state medical boards at a meeting held in Chicago. Dr. David A. Stickler of Denver is president.

Dr. E. W. Meis and Dr. J. W. Shuman of Sioux City, were elected members of the American Congress of Internal Medicine, at Chicago, recently. They were initiated with the degree of fellow.

Dr. J. S. Gaumer returned from Chicago where he has been attending clinics held at the various Chicago hospitals under the auspices of the American Congress on Medicine. At the convocation with over two hundred other physicians from various parts of the United States and Canada, he had conferred upon him the degree of Fellow of the American College of Physicians. Other Iowa physicians receiving the honor were Drs. Frank M. Fuller of Keokuk, Tom B. Throckmorton and Granville Ryan of Des Moines, John W. Sherman and J. H. Meiser of Sioux City.

Captain R. J. Lynch has returned to Des Moines after medical service in the army. He was stationed at Paris and at the front, performing face and jaw surgery. For some months he conducted a practice in New York City. He is opening an office at 218 Flynn building.

Dr. J. W. Kime will be a candidate for the republican nomination for representative in the state assembly from Webster county, according to an announcement made recently. The primaries will be held in June. C. V. Findlay is the present representative from Webster county. Mr. Findlay has not announced whether or not he will be a candidate for re-election. Dr. Kime has been active in public affairs in the city and state for a number of years. Especially has he taken a leading part in matters pertaining to sanitation and public health. He is a recognized authority on tuberculosis and is now engaged in physical reconstruction of tubercular ex-soldiers for the government.

Dr. and Mrs. C. S. Lister of Manchester have gone to St. Paul, Minnesota, where the former will engage in public health work for the regular army. Dr. Lister was with the American Army in France for some time during the world war, and has entered the service of the government again.

After two years' service in the navy Dr. H. L. Wyatt has returned to Griswold and entered practice. He will be associated with Dr. C. R. Jones. He was with Dr. Jones for three years before entering the navy.

The body of Dr. E. G. Birge, who died a short time ago was removed to Baltimore for the final resting place. This is the home of Mrs. Birge and her people and she preferred to bury her husband there as she expects to make that city her home.

No successor has been chosen for Dr. E. W. Rock-

wood whose resignation as head of the department of chemistry of the University of Iowa was announced to take effect at the end of the present scholastic year. It is not probable that a new head will be appointed before late this spring. Dr. Rockwood has served ably in the department of chemistry for thirty years, the last fifteen years of this period as head of the department. His resignation comes, at this time, through a desire to be relieved of the burden of administrative duties in order to pursue special research work in connection with his teaching. He will remain as full professor of chemistry.

The announcement of Dr. B. L. Eiker of Decatur county, as a candidate for the office of state senator from the fifth district, composed of Union, Decatur and Ringgold counties, appears in an issue of the Record-News. Doctor Eiker is a successful physician of Leon, for many years has been prominent in politics and is well known throughout the district.

Father Moulinier, S. J., president of the Catholic Hospital Association of the United States and Canada, and president of the Marquette Hospital at Milwaukee, was at the St. Anthony Hospital to talk to the Sisters, physicians, and any others who are interested in hospital work. Father Moulinier is one of the most prominent hospital workers in the United States.

Dr. Mary J. Erickson has arrived to take charge of the research work in the state board of health under the recent appropriation made by the state to carry on research on venereal diseases. The problem Dr. Erickson is working on is to find a selective culture medium for gonococcus. Dr. Erickson is a graduate of the State University of Michigan, in 1917, and for the past two years has done professional work in Michigan institutions. Miss Vallierie Decker, a State University of Iowa graduate of last June is assisting her.

Dr. Hugh Jenkins of Preston has received passports to Europe for himself and wife, also his daughter, Mrs. E. Perry and little son Reginald. They are booked to sail on the fast mail steamer, New York. They will visit the grave of their son, Howard, who is buried at Sieford, England. Howard Jenkins was a volunteer of the Canadian army and served during the entire war with the Canadian Engineers.

Dr. J. W. Reynolds was one of eight selected as a delegate at large to the national democratic convention which meets in San Francisco, California. Dr. Reynolds is the chairman of the democratic state central committee and a leader in the democratic circles in the state and is known to be a great organizer and will make the party a good delegate. The selection of delegates was made at the state convention in Des Moines some time ago.

Dr. Blanche Norton, whose home is in Eldora, Hardin county, Iowa, and who is at present an attache of a hospital at Trebizond, one of the historic cities on the shore of the Black Sea, is in charge of the medical work for relief of women and children in that region.

Dr. C. W. Allen of Los Angeles writes a brief but

interesting letter for the last week's issue of the Story City Herald. Dr. Allen was a former long time resident of Story City.

Word was received Saturday from Dr. D. N. Loose and wife which states they expect to arrive in Maquoketa about the 24th of March from California, where they have been spending a portion of the winter.

Dr. M. C. Mackin of Knoxville has been appointed superintendent of the Mt. Pleasant Hospital, succeeding Dr. Chas. A. Applegate, now superintendent of the Norwalk State Hospital, Norwalk, California.

OBITUARY

Dr. James Polk von Stein, age seventy-two, died at his home in North Liberty, where he practiced forty-two years, since he came to Johnson county from Pennsylvania, his birthplace. He never married.

Dr. T. W. Bennett, long a practicing physician at Lenox, and once state senator from the Adams-Taylor district, died in Long Beach, California, on February 2.

News of the death of Dr. John Hostetter, who died in El Paso, Tex, last Thursday, has been received by relatives in Des Moines. Dr. Hostetter was a graduate of Northwestern University and of the Johns Hopkins Medical School. He has spent the last few years in El Paso in an effort to regain his health.

Doctor George R. Skinner, eighty-three years old, father of Doctor Frank S. Skinner of this city, died in St. Louis, where he had spent the last four months with his son, Dr. George Skinner, Jr. He was a veteran of the Civil War and practiced medicine in Cedar Rapids about forty-five years. During the last three years he lived in Marion with his son, Dr. Frank Skinner, going to Chicago each summer to visit his other son, Dr. Arthur Skinner, and from there to St. Louis.

Dr. G. H. Grimmell, who died in Colorado Springs, was one of the earliest Des Moines physicians.

He was the attending physician at the birth of George B. Hippee and Judge W. H. McHenry. His residence was one of the first suburban homes in the community. It was located at the top of Sixth avenue hill, in the woods, where later the Tuttle mansion was situated and today the Victoria Hotel.

Dr. Grimmell was a cousin of Simon Casady.

He was a union army surgeon at Harper's Ferry during the war and being discharged on account of sickness located in Des Moines in the early sixties, later removing to Jefferson, whence he went to Colorado Springs about ten years ago, retiring from active practice. He was eighty-seven years old.

Dr. A. L. Belt, one of Fort Dodge's leading physicians, passed away Sunday night, March 7, at 10:01 at Mercy Hospital, after an illness of two weeks.

He was taken ill with symptoms of pneumonia. This disease did not develop, but infection spread so that he had to undergo an operation for mastoid. He recovered as far as the mastoid was concerned, but a day or two later erysipelas together with blood poisoning developed. At no time since then had there been much hope of his recovery.

Andrew Lincoln Belt was born March 1, 1861, in Butler county. In his early childhood he moved to Toledo where he lived until manhood. He attended Iowa University where he was graduated in 1890 from the school of medicine. For twenty years he was located in Gilmore City. He came to Fort Dodge nine years ago and with the exception of the time spent in the army has been here ever since.

Dr. Belt was one of the first medical men from Fort Dodge to offer his services to his country. After the outbreak of the war, owing to his age, he was denied a commission but served as a contract physician at Camp Dodge.

MARRIAGES

Announcement has been made of the marriage of Dr. M. E. O'Keefe and Miss Ann R. Sloan, Council Bluffs, daughter of Mr. and Mrs. Thomas Sloan, 231 North First street, which took place in February.

BOOK REVIEWS

ANAPHYLAXIS AND ANTI-ANAPHYLAXIS AND THEIR EXPERIMENTAL FOUNDATIONS

A Discussion of the Condition of Hypersensitiveness to Certain Substances with the Practical Applications of the Condition to the Prevention and Treatment of Disease by A. Besredka, Professor at the Pasteur Institute, Paris. A Volume of 143 Pages Published by the C. V. Mosby Co., St. Louis. Price \$2.25.

Ten years ago, the term anaphylaxis was known to only a very few people. Now the term is very frequently seen in current medical literature. It is no longer the "property" of bacteriologists, but has assumed an important place in clinical medicine.

This strange phenomenon of hypersensitiveness to a non-poisonous foreign protein produced by a previous introduction of a small amount of the same substance is explained by Besredka on the basis that the first injection stimulates the body to produce anti-bodies which in the cases in question, becomes attached to certain nerve cells. The injection of the second doses permits the substance injected acting as an antigen to suddenly penetrate the nerve cell for the purpose of uniting with the antibody. This produces the disturbance represented by the anaphylactic shock.

Of clinical interest is not only the possibility of producing such conditions as "serum sickness" hypersensitiveness to certain foods, drugs and insect

stings, but also the method of preventing the anaphylactic shock by desensitizing the person by repeated small doses of the foreign material, thus gradually neutralizing the antibodies in the nerve cells.

The book, which is a small volume of 143 pages, presents the subject of anaphylaxis in a very clear manner. It will furnish very profitable reading for every one who has occasion to administer serums, vaccines or other foreign proteins—which at the present time means practically every physician.

Henry Albert.

MEDICAL CLINICS OF NORTH AMERICA

Volume III, No. 1. (The Chicago Number), Octavo of 277 Pages, 59 Illustrations. W. B. Saunders Company, 1919. Published Bi-Monthly. Price Per Year; Paper \$10.00, Cloth, \$14.00.

The first paper in this number is by Dr. Isaac A. Abt on a very interesting and important subject, "Prognosis of Disease in Infancy and Childhood." Dr. Abt points out the occurrence of unexpected results in the treatment of children and advises the physician to be quite sure of himself in giving out a diagnosis and prognosis. Not a few young physicians in their first experience with children's diseases have met with disappointing and humiliating results, in not duly appreciating the condition of the sick child particularly in acute attacks of sickness. It is difficult to learn wisdom in these cases except through experience but papers of this kind will help. A second clinic by Dr. Abt as a case of Hanot's cirrhosis in a child which are sometimes difficult to diagnose.

A paper by Dr. Ralph C. Hamill on "Apprehension and its Causes," is interesting because these cases come to the physician for advice or treatment. In patients beyond forty, a Wassermann test will often reveal important facts. There are other important clinics which we have not space to consider.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA

Third Series, Volume the Fortieth, Philadelphia, 1918. Printed for the College.

The papers composing this volume deal with war experiences and conditions, except three; one by John B. Deaver on Peptic Ulcer, one by W. W. Keen and Allen G. Ellis on Brain Tumor, and one by Dr. Charles W. Burr; "Jean Paul Marat, Physician, Revolutionist, Paranoic," also a short communication by Solomon Solis-Cohen on experimental studies in Immunization Against Pneumococcal Infection.

One of the war papers, by Dr. D. J. McCarthy on the Hospital Organization and Sanitary Service of the Russian Army is particularly interesting because of our almost complete absence of knowledge of Russian hospital organization.

The papers published in these volumes are of permanent value.

The Journal of the Iowa State Medical Society

VOL. X

DES MOINES, IOWA, JUNE 15, 1920

No. 6

PRESIDENT'S ADDRESS*

WM. L. ALLEN, M.D., Davenport

During the past five years the world has been torn with conflicting emotions, wave after wave of patriotism swept from one country to another. All classes became united by one common purpose, the defense of the downtrodden, and the defeat of the enemy. With all this patriotism, idealism came forth from unexpected abodes. Our greatest financial institution announced that "without the courage to fight for ideals there can be no foundation for success of any kind." But now as the great war has only just passed into history, as great a conflict is upon us. Patriotism appears to have been forgotten, idealism has disappeared like a bubble, and commercialism has pushed all else aside. Into this conflict has come organized labor, with its demands for lessened production, shorter hours and more pay. Financial writers and bankers have deplored this conflict, and have called upon the church to save the people from this orgy of extravagance, and bring them back to the simple life. Women's clubs have endeavored to help, but have gone in so strongly for woman suffrage and for civic improvements, that their great power has not been properly utilized.

And what has medicine done in all these struggles? Our great conflict against disease, a conflict with a greater death rate than even our world war produced, has so engrossed our daily lives that we have seemed indifferent to economic questions. Our fight against tuberculosis, influenza and venereal diseases, and cancer, has occupied many of our greatest men; our medical societies have devoted much of their time to perfect our standards of efficiency in diagnosis and treatment, and in the standardization of hospitals, while our army of 170,000 practitioners has been compelled to work day and night, (with never a thought of six or eight hour day problems) to combat disease and relieve suffering.

In all of our discussions and in all this economic conflict there has been one great power overlooked, namely the power and the influence of the mother for good. Let us see how important this is. The greatest thinkers have stated that the only cure for bolshevism and anarchy is education and Christianity. Dr. Nicholas Murray Butler says that as Democracies have separated the church from the public schools, the three necessary factors in education of both mind and morals, are, (1) the family, (2) the school, and (3) the church. Many believe the influence of the family greater than all else; and who in the family is the great moral force if not the mother? This being a fact, it remains as one of our greatest privileges as well as our first duty to prepare our young women for motherhood. That we have fallen far short of our duty is apparent from the report of the census bureau. It shows that in the birth registration area of the United States, which takes in twenty states and represents 53.1 per cent of our population, there were in the year 1917—1,353,792 living births, representing a birth rate of 24.6 per 1000 population; so can say that at the present time we should have in these United States 2,700,000 living births annually. These reports show also that in the year 1917 the average number of children born to native born mothers is 3.1 and the average number living is 2.8. Mothers born in Denmark, Norway and Sweden have 91 per cent of their children living, native born mothers 89 per cent, while the lowest rate given is 82 per cent for mothers born in Hungary and 83 per cent for mothers born in Poland. But mothers born in Germany have the largest families 4.5 and also have the greatest number of children living 3.9. This means that our native born women have nearly 25 per cent less living children than the German and Scandinavian born women; and that not only is their fecundity less, but also that either their children are less robust, or that our native born mothers are not properly trained to raise children. On turning to the mortality statistics for 1917 in the registration area which represents a greater area

*Presented at the Sixty-Ninth Annual Session, Iowa State Medical Society, May 12, 13, 14, 1920, Des Moines, Iowa.

than the birth registration, and gives the mortality reports from thirty states or 72 per cent of our population, we find that there were 12,528 deaths of women due to childbirth as follows:

Accidents of pregnancy.....	1028
Puerperal haemorrhage.....	1178
Other accidents of labor.....	1194
Puerperal septicaemia.....	5211
Puerperal phlegmasia alba-dolens, embolus and sudden deaths.....	449
Puerperal albuminuria and convulsions.....	3409
Following childbirth (not defined).....	58
Puerperal disease of the breast.....	11

The mortality of infants at or near birth is as follows, exclusive of still birth:

Hydrocephalus	994
Congenital malformation of the heart.....	7166
Other congenital malformation.....	3681
Premature births.....	34704
Congenital debility, marasmus.....	10428
Injuries at birth.....	6631
Other causes peculiar to early infancy.....	5086
Lack of care.....	199

In addition to the above we must not overlook the still births which were reported as 1109 in the State of Iowa in 1918, and which are estimated at 60,000 for the entire United States; also the miscarriages, and abortions, variously estimated by different writers as between 400,000 to 600,000 annually. All of the above causes of death of either mother or infant are, excluding syphilis, largely due to two causes:

1. Improper care of the mother during pregnancy and childbirth.
2. Improper care and preparation and training of the mother for childbirth.

As to the first proposition, Dr. C. H. Davis of Milwaukee writes in the March number of the *Journal on Surgery, Gynecology and Obstetrics*, I quote, "Between the ages of fifteen and forty-five childbirth is the second greatest cause of death among women. For the year 1915 in the registration area of the United States there were among women of these ages 29,200 deaths from tuberculosis, 10,134 from childbirth of which, 4,173 were from puerperal sepsis; 8,766 from all kinds of digestive disturbances; 5,549 from pneumonia all types; 5,424 from cancer and other malignant tumors; while for these ages syphilis was reported as the cause of death 647 times, and gonorrhea 174 times."

He moreover shows that one life insurance company reports, "that one man in every seventeen who applied for life insurance has a mother or sister or both who died from the immediate

effects of childbirth; one in twenty-seven from tuberculosis; and one in forty-seven from cancer or other malignant tumor." We may say then that from the census reports, childbirth is next to tuberculosis our most important battlefield, and according to life insurance reports the most dangerous of all procedures affecting the lives of women between the ages of fifteen and forty-five. Many writers claim that in spite of all our knowledge of puerperal sepsis, the mortality rate due to childbirth has not decreased in the past sixty years. Until recently obstetrics has been the most inadequately taught of all branches of medicine. Practically 80 per cent of our practitioners have seen but few cases of obstetrics before graduation, and yet these are the very cases to which they are sure to be called to attend early in their career. Should they have a case of appendicitis or cholecystitis they would not hesitate to call in a surgeon for help but they are ashamed to call for help in a case of obstetrics which may need no help. They have had no experience in a "touch course" and their lack of instruction compels them to wait and trust to luck and the percentage. So when the case really needs assistance the proper time has gone by, the favorable moment for assistance is long past, before as a last resort help is called. It is because of this fact that so many cases come to Cæsarian section, or to grief. There would be no such mortality in childbirth as exists today were we able to standardize our procedures according to the best obstetrical knowledge, and bring such standards before the rank and file of the profession, and before all the women as well. All the deformities of the pelvis, or obstructing tumors, and all cases of placenta prævia, or kidney insufficiency, should be placed in the hospital for surgical assistance. These cases generally require section or a premature delivery. There are many more cases of inertia due to general physical debility than of those above mentioned, and these cases should have the care of an obstetrician; for a forceps operation will probably be indicated. These are the cases which frequently go to the surgeon and are operated upon unnecessarily.

As to the claim that obstetrics was not as adequately taught as other branches of medicine, let me give you a reason therefore; last week three wise men came from the far East to search for advanced ideas and methods of teaching medical science, to be more exact there were not three but six celebrities who came, and they came from London and Edinburgh and Paris. They had been advised to see above all other places Harvard, Johns Hopkins, and Iowa City; in my opin-

ion that is one of the greatest compliments ever paid to our state. As your representative I had the honor to be a guest at that meeting. After we had been shown the excellent and efficient methods of teaching, and after we had been shown the wonderful success of Dr. Steindler's treatment of the little crippled children and Dr. Byfield's and Dr. Daniel's interesting experiments with artificial foods, I asked one of the trustees why nothing had been done for obstetrical cases and he said that they had been trying for twenty years to build a maternity hospital but there were too many other demands.

More important than the above is the great lack of training and the entire lack of preparedness of the young women themselves. Normal labors are today much less frequently found than formerly. The daily life of young women is not such as best fits these precious lives for the battle of labor, to which all women should aspire. Those of you who have had experience in obstetrics know, that aside from the normal anatomical development of young women, the greatest importance is the muscular strength of the entire body, and the endurance of the heart. To fit these young women for such an ordeal, is just as important as to give our young men universal military training. The ordeal of labor is frequently as great a physical strain as a prize fight or a wrestling bout. The easy labors usually found in women of the hard working class is due to the strength of the muscles and heart, and that can not be obtained by a life of idleness and self-indulgence. The automobile has with many taken the place of the valuable exercise of walking. The use of the abominable $2\frac{1}{2}$ inch heel and sharp pointed shoe, has prevented those who have no automobile from taking any kind of exercise, and has made the posture of these victims of fashion, a veritable nightmare to all lovers of anatomical beauty, and has brought a rich harvest to all gynecologists and orthopedists.

The value of a healthy and happy motherhood is of such extreme importance to all our people in every walk of life, that it would seem easy to enlist the support, not only of the medical profession, but of the church, and the women's clubs, and of our National Bureau of Health.

An increased birthrate is just as important as an economic factor as an increase in factories or an increase in other productions.

In 1881 and 1882 there were thirty births ev-

ery twenty-four hours in one hospital alone in Vienna, while from February 8 to 14 of this year there were in the entire city of Vienna only eight births as against 1032 deaths. Such a condition can only arise from extreme physical and financial exhaustion as a result of war or pestilence, but it remains as a warning not to be ignored.

My honored predecessor last year in his eloquent address gave you a timely warning against an increase in degeneration by our careless control of the hereditary transmission of disease and degeneracy.

Let me urge you to take up the study of the care and proper training of all our young women, and to see that they are taught to have proper exercise, and that they wear proper clothes. Bring before the proper boards of education, and the women's clubs, and all your patients, the need of some systematic procedure to obtain a thorough survey and classification of all young women, and ask them to adopt some standard course of exercise, to be graduated, or modified, according to the physical condition of the individual. Let us suggest for consideration the following:

1. Examine thoroughly all young girls between the ages of fourteen and twenty, especially considering the pelvis, heart, kidneys and the muscular strength.
2. Instruct as to proper clothing, shoes and hygiene.
3. Require exercises by setting up drills, breathing exercises, and muscle tension exercises for thirty minutes each day.
4. Require walking from two to six miles a day.
5. Require tepid or cold 4 per cent salt baths in some cases every other day.
6. Require gymnasium work for certain cases.
7. Arrange for lectures in schools and women's clubs, and for printed instructions.

In conclusion let me urge you to consider our birth and mortality reports carefully and earnestly, and see if the medical profession cannot by a campaign in behalf of a better, and happier, and healthier motherhood, save the lives of these 17,000 women who are now lost annually through childbirth; and in doing this, reduce the annual loss of nearly 1,000,000 infants, who die either before or at birth or during the first year of their existence.

LUNG ABSCESS, EXOPHTHALMIC GOITRE AND CHOLECYSTITIS FOLLOWING TONSILLECTOMY*

W. H. RENDLEMAN, M.D., Davenport

The object of this paper is to call to your attention some of the sequelæ of tonsillectomy. It is not surprising with the conditions for sepsis so favorable as are found with tonsillectomy, where pus expressed from diseased tonsils bathes a raw surface known to have a large lymphatic drainage, that foci of infection elsewhere in the body develop following this operation. The wonder is that sequelæ are not more common. It is my belief that serious results are more common than is generally recognized. My own limited experience in caring for some of these patients, often months after the laryngologist had discharged them as cured, convinces me that the operation of tonsillectomy is not so simple and free of harm as we have been lead to believe. Of late it has become so popular to dispose of the tonsils for trivial ailments, and oftentimes without any reason for suspecting these organs to be responsible for the infection that our attention is much oftener brought to these sad after effects than formerly when the tonsil was exceptionally removed. There is no other operation performed so frequently with so little knowledge of the conditions requiring operative interference or with so little indication as tonsillectomy.

In properly selected cases there is no more ardent advocate of tonsillectomy than I but I do believe the present wave of enthusiasm for seeking and eliminating focal infection has carried us too far in our war on the teeth and tonsils. None of us doubt the great source of evil in a diseased tonsil and conservative surgery would recommend its removal. But how often have disappointments followed this operation where improvement of an arthritis or other form of infection failed to take place? Is it not true that in most instances after the tonsil is removed, in good faith that it is the offending organ, the trouble is not improved? This may be true even though the tonsil is the original source of infection but the door is locked after the thief has entered. Besides, as Zahorsky has shown in following 150 children who had their tonsils removed that these persons are still subject to rheumatism, adenopathy, diphtheria and other infections frequently known to be of tonsillar origin. Also he showed an increased tendency to bronchial and pulmonary troubles. Pneumonia and bronchitis were more

frequent than in children with tonsils. May not the tonsils and their recurring attacks of inflammation have something to do with developing an immunity against pulmonary infections? When the seriousness of these complications is considered one may well hesitate to recommend the removal of an unoffending tonsil simply because of the presence in the body of some trouble of which the tonsil is suspected as being a cause. Where there is reasonable doubt as to the guilt of the tonsil the doubtful benefits of its removal should always be weighed with the possible dangers sometimes following.

As illustrations of serious complications following tonsillectomy I wish to present the following cases: First, lung abscess. Mrs. G. P., age thirty-four, was first seen October 14, 1917. Her tonsils had been removed July 21, 1917 under general anesthesia. The next day she had pain in the right side of the chest, cough and fever. Was in bed one week. Had been coughing and expectorating foul sputum ever since. Had a hemorrhage of a cupful of blood August 26 but none since. At the time of examination she was in bed with irregular fever, cough and the expectoration of large amounts of very foul pus. Examination of the chest showed in the interscapular region of the right side a local consolidated area with rales. Radiographic examination a week later revealed in the upper portion of the right lower lobe posteriorly a good sized area of consolidation with a cavity in the center. The remainder of the lung was normal. The patient was not seen again until May 18, 1918, when she was in good health, had gained fifteen pounds in weight, had very slight cough with no expectoration and the roentgen ray examination showed a very small shadow corresponding to the former large abscess. She has not reported since.

This unfortunate complication has recently received considerable attention in the literature, cases having been reported by Manges, C. W. Richardson, Dean Lewis, Ira Frank and others. Much has been written by the laryngologists as to its cause and prevention. It may be said that the great majority occur in adults after general anesthesia. The mode of infection may be through the blood stream by septic emboli from thrombosed veins around the seat of operation, or probably more commonly by aspiration of infected matter. If embolism is a common source it would be expected to find more frequently multiple abscesses in the lung and other organs. That this is a very possible source is proven by the occurrence of brain abscess, cholecystitis, endocarditis, and arthritis following tonsillectomy. In favor of the aspiration theory is the fact that most abscesses are in the right lower lobe. Both sources no doubt contribute to this complication. That anesthesia in itself is not a cause is shown by the

*Presented at the Sixty-Eighth Annual Session, Iowa State Medical Society, May 7, 8, 9, 1919, Des Moines, Iowa.

fact that lung abscess seldom if ever follows anesthesia for operations on other parts of the body. The prevention must remain with the laryngologist in the improvement of his technique and the better study of the indications for this operation.

Another interesting complication and one which I fail to find recorded in the literature is that of exophthalmic goitre. The following case is a good example. Mrs. V. D., age thirty, gave a history of having had attacks of tonsillitis, scarlatina and rheumatic fever. She had never had goitre or had any of her relatives. On account of her diseased tonsils tonsillectomy under general anesthesia was performed in the quiescent stage seven weeks before I saw her. Three or four days later before the throat was completely healed the thyroid became very much swollen and painful to the touch. At the same time there developed prominence of the eyes, nervousness, palpitation, vomiting, fever, loss in weight and sweating. Examination made seven weeks after the operation showed to an exaggerated degree the symptoms of exophthalmic goitre. The eye symptoms, tachycardia, nervous excitability, fine tremor, sweating, fever, vomiting, skin rash, and loss in weight were all very marked. The thyroid was enlarged and sensitive to touch. She failed to improve under medical treatment. Her condition was such that it was deemed advisable at the Mayo Clinic to do a ligation of the upper poles preliminary to thyroidectomy which was performed later with good results.

That diseased tonsils may cause goitre has long been believed. That their removal should cause it is not so well known. When one considers the proximity of the tonsil and thyroid and their close lymphatic connections it is not surprising that the removal of a diseased tonsil leaving an open wound bathed with infectious material affords a good entrance for infection of the thyroid gland. The case related above was an acute thyroiditis due probably to direct infection from the throat and resulting in hyperplasia of the thyroid tissue with hyperthyroidism. The same mechanism whereby goitre follows tonsillitis may be at work when goitre follows removal of the tonsils. Vincent in 1906 and 1907 reported that about two-thirds of all rheumatic fever cases had thyroiditis. At that time he considered the thyroid enlargement as a defense against infection, the gland in some way giving off detoxicating bodies to neutralize the rheumatic infection. Billings raises the question of the thyroid enlargement being due to the same infectious agent as the rheumatism, both a result of focal infection most commonly in the tonsil. Patients with goitre have been known to improve after tonsillectomy and conversely unusual reactions in the goitre may follow this operation. Beebe says a

large percentage of the cases of hyperthyroidism have diseased tonsils and adenoids and that it is not uncommon to date a thyroid enlargement to an attack of tonsillitis.

A third case briefly stated illustrates metastatic infection following removal of the tonsils. Miss P., a nurse without previous history relative to the symptoms later to develop had her tonsils removed. While still in bed she developed otitis media and at the same time pain in the epigastrium with jaundice. She recovered from the otitis media, got on her feet again and went to work. For a year she continued at frequent intervals to have pain and tenderness in the gall-bladder region with fever every afternoon. The gall-bladder was drained with immediate cessation of pain and fever and complete recovery.

Considering the dangers that must be accepted by a patient about to part with his tonsils it might be well to consider some of the real indications for their removal. I believe that removal of the tonsils without good cause involves a definite loss to the protective mechanism of the body, especially of the child. The tonsil is the first line of defense from infective organisms of the throat. Nearly all young children have enlarged tonsils and these should rarely be removed. Another clinical fact worth considering in persons with recurrent tonsillitis without systemic effects is that the attacks tend eventually to wear themselves out. Some have given the average length of time for such a cycle as ten years during which time the body has developed enough immunity to prevent further infection. In such a patient it would be superfluous to remove the tonsils unless there were also present arthritis or other evidence of general infection.

Permanent enlargement causing otitis media, deafness, mouth breathing, persistent adenopathy, deeply embedded tonsils with poor drainage leading to abscesses and tonsils scarred from destructive throat infections like scarlet fever, diphtheria and streptococcus inflammations are all indications for complete enucleation. Recurrent attacks of endocarditis and arthritis where there is any indication of diseased tonsil give good reason for tonsillectomy. However, it is too much to expect that an established case of deforming arthritis or an endocarditis will be cured or even improved. Frequently nephritis may result from repeated recurrences of albuminuria following acute attacks of tonsillitis in which case removal of the tonsils is clearly indicated.

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Discussion

Dr. Granville N. Ryan, Des Moines—Dr. Rendleman has touched upon many of the salient points that arise daily for our consideration. There is an immunity imparted to the general system from the tonsils and especially from the young child. Therefore, the tonsils should not be removed before the age of seven, unless they are septic, and, we must remember that the submerged tonsils are frequently septic and should be carefully watched. An abscess of the lung follows inspiration of blood clots or more especially from a portion or all of the tonsil. It is therefore extremely necessary to use the aspirator in the throat constantly during the operation to prevent any such complications. After the tonsils are removed, by applying phenol and glycerine, from 5 to 10 per cent or turpentine we will avoid eustachian tube complications. In speaking of exophthalmic goiter, it is possible that this condition is precipitated from the trauma, produced in removal of the tonsils such trauma more than likely stimulates the cervical sympathetic, which is followed by the appearance of exophthalmia.

Dr. Rendleman—Lieutenant-Colonel Dean Lewis has reported some cases of lung abscess following tonsillectomy. He was not present at the time I was discussing lung abscess, but I am sure we would all appreciate it if he would discuss that phase of the subject.

Lieutenant-Colonel Dean Lewis, Chicago—We have had seven cases of lung abscess following tonsillectomy, all of which have given about the same history. The patient did not get along very well, had a low temperature for seven or eight days, following this commenced to have fever, and then developed all the symptoms of lung abscess. In cases of lung abscess following tonsillectomy, I do not think there is any doubt but that it is due to aspiration of a portion of the tonsil at the time it is removed. The tonsillectomy was probably done under deep ether anesthesia and the patient had aspirated part of the tonsillar substance, with the result that lung abscess developed. For this reason I believe that tonsillectomy should as a rule be done under local anesthesia. It is rather a serious complication when the patient undergoes an operation for such a simple thing and secondarily develops something that is very hard to cure. I do not think there is any metastatic infection in these cases—I do not believe there is any possibility that in all these cases of lung abscess metastatic infection of the lung has occurred. It is due to aspiration of a portion of the tonsil when removed. The only way I know to prevent it is to have the patient wait until the aspiratory impulse is lessened.

Dr. Rendleman (closing the discussion): If we will look around I believe we will find that lung ab-

cess following tonsillectomy is much more frequent than is generally supposed. In the last two years there have come under my observation two cases of lung abscess following tonsillectomy by good men and under general anesthesia. While a few years ago we never heard of this complication, now the literature is full of reported cases. The experience of having a case of exophthalmic goiter following tonsillectomy was very unusual with me, and it seems to have been unusual as far as the literature is concerned. Whether it is the result of traumatism, as Crile would have us believe, or whether from an infection, is difficult to determine. I for one am not as strong a believer in focal infection as I used to be, but in this particular case there does seem to be a relation because the thyroid was distinctly enlarged and tender and was feverish. In other words, it had inflammatory symptoms, and coming within three or four days after the operation would lead one to believe that it was of an infectious nature. The symptoms of hyperthyroidism following rendered the case one of the most remarkable I have ever seen.

PRACTICAL CONSIDERATIONS OF THE DANGERS ASSOCIATED WITH BLOOD TRANSFUSIONS*

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Nothing tends to bring a therapeutic measure more quickly into disrepute than the abuse of its employment. As a therapeutic agency blood transfusion has risen to a position of recognized eminency and, as a precaution against its too frequent employment in cases of questionable indications, a discussion of the principal dangers and complications attendant on and resulting from its use seems in place.

The medical profession was stimulated by the experiments and writings of Crile, Carrel, Guthrie, Landsteiner, Moss, Brem, and others, to the realization of the enormous therapeutic possibilities offered by the operation of blood transfusion, and since then, by the efforts of hordes of workers, innumerable methods and modifications have been devised. At first, on account of the technical difficulties encountered, the operation was uncertain and time-consuming, its practice was necessarily limited to a few skilled surgeons with specially devised instruments and specially trained corps of assistants, and its employment was restricted to specially selected cases. But today, after repeated modifications, the technic is so simplified that blood transfusion may be success-

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fully accomplished by the least skilled operator, and naturally the measure is advocated in ever widening fields.

We have recognized the dangers associated with blood transfusion, but in our eagerness to point out the particular advantages of some special method, or to exploit a pet theory with regard to its therapeutic value in some particular disease condition, the dangers have, to a certain extent, been lost in the background. While the occasional transfusion is successfully performed without preliminary blood tests, the operator whose experience has been at all extensive will not risk such a procedure unless under the most urgent circumstances.

The principal dangers associated with the transfusing of blood from one person to another are: (1) The introduction of air and blood clots as emboli, (2) acute dilatation of the heart, (3) the transmission of infection, and (4) agglutination or hemolysis of the donor's corpuscles.

Air introduced into the circulatory system may prove dangerous. Experimentally this may be demonstrated by pumping a large volume of air into the vein of an animal. Clinically in extensive surgical operations on the neck, when an opening in a vein is for a time unrecognized, suddenly the condition of the patient, without apparent cause, becomes grave; cyanosis and dyspnea develop, the pulse becomes weak and rapid, and death quickly follows. Necropsy reveals extensive air emboli in the heart and lungs. Air in the circulatory system, to be dangerous, however, must be present in large quantities, for in the course of operations, especially on the neck, small quantities of air can frequently be demonstrated in the vein without producing any effect on the patient. But today, with our simple method of transfusion (citrate method), this danger of introducing into the circulation sufficient air to produce any ill effect can be easily avoided. By the employment of a small caliber needle for insertion into the recipient's vein and by allowing the flow of blood to be under low pressure, the introduction of blood clots of sufficient size to produce harm can be absolutely prevented.

The danger arising from an acutely dilated heart demands constant recognition. In the aged with marked arteriosclerosis, in the extreme anemic with the resultant myocardial impairment, and in others with suspected cardiac lesions, the quantity of blood injected must be limited and caution must be exercised to avoid the too rapid loading of the right heart.

The possibility of transmitting disease from the donor to the recipient in the course of blood

transfusion has not received the attention in the literature on the subject that it obviously deserves. Syphilis, of course, is the most likely disease to be conveyed in this manner, and most writers in discussing the subject are satisfied by cautioning that all donors must have a negative Wassermann. While the recorded number of patients who have acquired syphilis in this manner is indeed small, when we consider the prevalence of the infection and our admittedly inadequate means of detecting its presence, this possibility immediately demands wider recognition. Syphilis is one of the most widespread of all infectious diseases. Accurate data with regard to its prevalence in the general population are not obtainable. Syphilologists, basing their opinion on the study of statistics from different groups or classes of people, estimate that from 10 to 18 per cent are syphilitic. For instance, Vedder found 20 per cent infected with syphilis among the class of men from twenty-five to thirty years of age from which the army is recruited. He also estimated that about 5 per cent of the young men in our colleges are syphilitic. Syphilologists agree that the Wassermann test cannot be considered an infallible test in the diagnosis of syphilis. Its accuracy varies with the skill and experience of the serologist. Stokes has stated that a negative Wassermann, while rare in secondary syphilis, occurs in 35 per cent of syphilitics in the later stages of the disease and in all syphilitics during the first few days of the primary lesion.⁸ "Repeated negative Wassermann tests may be obtained in persons in whose blood the *Spirochæta pallida* can be demonstrated by animal inoculations."⁹

In the light of our present knowledge of syphilis, the possibility of a patient being infected cannot be conscientiously ruled out except after a thorough examination by a competent syphilologist in conjunction with a negative Wassermann. In accepting a professional or a volunteer donor with only a negative Wassermann label attached, the responsibility of the operator becomes exceedingly heavy and immediately his first thought should be: Are the indications for transfusion so urgent in character as to warrant the risk attendant on this procedure? Are we justified in using the blood of a professional donor unless he is subjected to a most rigid examination? For example, the transfusion of a young woman who has become moderately anemic from excessive or prolonged menstruation without any evidence of malignancy will tend to check the bleeding and overcome the anemia quicker than any other known therapeutic measure. But unless a suitable donor can be obtained from among her rela-

tives general supportive measures, such as rest in bed, fresh air, nourishing food, with tonics of iron, arsenic, and the like, should be advocated rather than transfusion.

There are many instances in which the condition of the patient is so critical and the indication for transfused blood is so apparent, however, as in a case of acute hemorrhage, that the risk of transmitting syphilis should be of secondary importance. There are other diseases in which the immediate condition is less critical, but in which the value of transfusion is equally apparent, as in the anemic patient preliminary to operation for carcinoma of the gastro-intestinal tract. All diseases cannot be classified according to the relative urgency with which transfusion is indicated; each case must be judged by itself.

The chief immediate danger in blood transfusion is the introduction of incompatible blood into the vein of the patient, that is, blood in which the cells of the donor are agglutinable by the serum of the patient; immediate agglutination of the transfused corpuscles occurs. Isohemolysis may also be present so that there is destruction of the red blood cells with the liberation of the hemoglobin. Clinically we detect this by the severe reaction through which the patient passes and by the finding of hemoglobinuria, increased urobilin, and phagocytosis of the red blood cells. The gravity of this danger depends on the extent of the destruction. In a series of 1032 blood transfusions at the Mayo Clinic there were twelve instances in which severe reactions resulted from the massive destruction of red blood cells. In the nine cases in which regrouping of the bloods of the patient and donor was possible an error was discovered in the initial blood test (usually a clerical error in recording the group). The clinical picture of these reactions is typical. They occur early, after the introduction of 50 c.c. or 100 c.c. of blood; the patient first complains of tingling pains shooting over the body, a fullness in the head, an oppressive feeling about the precordium, and, later, excruciating pain localized in the lumbar region. Slowly but perceptibly the face becomes suffused a dark red to a cyanotic hue; respirations become somewhat labored, and the pulse rate, at first slow, sometimes suddenly drops as many as from twenty to thirty beats a minute. The patient may lose consciousness for a few minutes. In one-half of our cases an urticarial eruption generalized over the body, or limited to the face, appeared with these symptoms. Later the pulse may become very rapid and thready; the skin becomes cold and clammy, and the patient's condition is indeed grave. In

from fifteen minutes to an hour a chill occurs, followed by high fever, a temperature of 103° to 105°, and the patient may become delirious. Jaundice may appear later. The macroscopic appearance of hemoglobinuria is almost constant.

Fortunately, in most instances the reaction becomes manifest after the introduction of from 50 c.c. to 100 c.c. of incompatible blood, and if the symptoms are recognized and the operation quickly concluded, the patient's condition, while obviously grave, will probably not prove fatal. If the symptoms are not early recognized and interpreted as danger signals, however, and if 500 c.c. or more of incompatible blood are injected into the circulation, fatal results are to be expected. Happily these reactions are absolutely preventable by preliminary blood tests performed by competent laboratory workers. The accuracy of these tests is well substantiated by the fact that in more than 2500 transfusions in our clinic there has not been a single group reaction when the bloods of the donor and recipient were properly tested before the operation. The necessity of a preliminary test cannot be over-emphasized, and in no instance except in the utmost urgency, as in an acute massive hemorrhage when the life of the patient is in the balance, and time does not permit the testing of a donor, are we justified in using a donor whose blood has not been previously grouped.

Such contingencies can be avoided to a large extent, however, especially in large surgical centers, where emergency transfusions are most likely to occur, by maintaining a list of prospective donors from among hospital attendants who have been previously tested and whose blood has been found suitable (Group 4) for any recipient, that is, whose corpuscles are not agglutinable by the serum of any others. If an untested donor is employed, extreme caution should be observed, allowing the first 100 c.c. of blood to flow into the vein of the recipient very slowly, consuming at least five minutes. And if any untoward symptoms develop, the transfusion should be concluded immediately and another donor secured.

The operator should be conversant with all the dangers associated with the transference of blood from one person to another. He should exercise judgment in advising the procedure, taking into account the urgency of the indications, and he should be conscientious in the selection of the donors, employing only those who have recently been subjected to a physical examination and a Wassermann test. The application of this valuable therapeutic measure must not be undertaken without a careful consideration of all the

dangerous complications that may follow. The procedure is very often considered only a simple intravenous medication or a minor operation, while in reality its potential dangers place it with the major operations.

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CARCINOMA OF THE RECTUM*

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In dealing with the subject of carcinoma of the rectum it is my intention to disregard the etiology, pathology and symptoms, and limit the discussion to the most practical aspect of the situation, which is the treatment. And in this discourse it must also be understood that the discussion is limited to carcinoma of the rectum proper, and not to the disease as we find it in the lower sigmoid and in the upper rectum.

My experience in treating diseases under this head has been so discouraging that I have become loathe to continue its use. While in previous years I resorted to the usual surgical procedures, my end results were so unsatisfactory that I have discontinued them. Not only my end results have been unsatisfactory, but the end results of other operators in this field, as I have had opportunity to see them, have caused me to refrain from referring these cases to any one else for operation. Those of you who have performed any of the radical operations for carcinoma of the rectum will, I think, bear me out in the statement that these cases are not benefitted by operation, and, on the other hand, their condition is in the majority of cases made worse. What is more loathsome than the results of a Kraske operation, with the inevitable recurrence at the seat of operation, with the fecal incontinence and your inverted, swollen, inflamed mucosa? It is a pathetic affair. In the great majority of cases the diagnosis is not made sufficiently early to war-

rant any kind of surgical interference. The lumen of the bowel is large and precludes any early obstruction, while the lymphatics of the rectum are subject to early metastasis. The sacral and lumbar lymphatics become involved early, and in a large majority of cases operation is not undertaken until after metastasis has occurred. If this be true, then it is of no avail to operate under such circumstances.

Appropos of the remarks I have made, I wish to report briefly the history of a few cases that I have had personal experience with:

Mr. J. W., age sixty-two; came to the office complaining of a trouble remote from his rectal difficulty, and during the course of the examination, in eliciting the history, it was found that he complained of a small amount of blood at irregular intervals, and this has gone on over a period of months. He was under the impression that he had hemorrhoids. Upon examining the rectum it was found that he had an annular carcinoma just within the sphincter. The tumor was so low down that the finger could be passed up on the normal mucosa throughout its entire circumference. This man was not conscious of having anything of very serious nature to deal with, and when told that he had carcinoma of the rectum he wanted to know what to do. I told him to do nothing, to leave the case alone entirely until signs of obstruction occurred and then to have something done. He did not accept my advice and a Kraske operation was performed. In February he had a recurrence of the growth at the seat of operation and died three months later.

Mrs. J. W., age sixty-two, had a similar carcinoma with about the same history, and she was fortunate enough to live nine months following the Kraske operation.

I could go on repeating case histories up to the number of fourteen that I have had personal experience with and one is just a duplicate of the other. These patients are not made better by surgical interference, and I have not seen a case that has been improved by any surgical procedure.

You may ask what I would have to offer you if we do not operate on these cases. They can be treated symptomatically until obstruction occurs, and when obstruction does occur you can do an inguinal colostomy, when these patients will live longer, be more comfortable, and have fewer regrets than if they subjected themselves to any kind of an operation for carcinoma of the rectum.

Discussion

Dr. Lewis Schooler, Des Moines—Cancer of the rectum is not a new subject and is generally assigned to the surgical side in preference to the medical. The most favorable statistics that have been gathered in regard to these conditions are those from the

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quack doctor, who has 100 per cent cures. The next most favorable reports come from the man who operates and then gets his patient out of the hospital or out of his care before he dies, and fails to follow him up. Statistics of that kind are very favorable. Some hospitals can show very good records in regard to those cases for the same reasons. The most unfavorable statistics that we get upon this subject come from the Old Soldiers' Homes, where the men are attacked while in the home and remain there until they die because they have no place else to go. The same may be said with almost equal emphasis of the old people's homes. The next most unfavorable cases are those from the surgeon who follows up his cases and familiarizes himself with the end results and the outcome of the operation that he has performed. The difficulty with these operations, as remarked by the essayist, is the same as that which occurs in a great many other cases—failure of the patient to come under observation during the early part of the disease, or in its incipency. Frequently the disease is far advanced before the patient or his physician knows anything about the difficulty. The physician is not informed even that the man has any difficulty, for the reason that the patient is able to gauge his affliction only by the amount of pain that he has, and frequently this symptom is non-existent in the early or incipient stage of the disease. Therefore the patient does not even know that he is suffering from any particular affection. This difficulty is, of course, unavoidable, and it is unavoidable to such an extent that when the patient does report he not only has a localized infection, but has a general systemic infection, and his system is well poisoned because of absorption through the lymphatics of the rectum and the lymphatics and glands of the pelvis in general. I am inclined to believe with the author that, owing to those conditions, operation is inadvisable, and I have of late years refused to operate on any rectal carcinoma that was at all advanced. And further, I have refused to operate upon several cases that were in the incipient stage because I could feel that there was an infection of the lymphatics and glands in the pelvis. I have waited until the disease became obstructive and then made an inguinal colostomy. There might be one advantage in operating on these cases, in that the patient would probably die sooner. When one sees a patient suffering from a disease of this kind, loathsome to himself and to his friends, it would look like an act of mercy if he could pass off at an early stage of the disease. I think the best treatment to be instituted in these cases is home nursing and liberal doses of morphin or opium. And the nurse should be the man's wife or some other member of the family who is sympathetic and does not want to see him suffer, but will conscientiously carry out the directions of the doctor as long as they can. Then after that you should go the limit with the opium or morphin and make the patient as comfortable as you can during the balance of his life.

Dr. Chas. H. Magee, Burlington—There is just one point here, gentlemen—the essayist has proposed his subject and then ran away from it. Dr. Schooler has done pretty much the same thing. They say that the patient comes too late—they pre-suppose that. Let me pre-suppose that he has come early enough: Now I will say to the essayist, what will you do? He has run away from his subject.

Dr. William Jepson, Sioux City—I am not prepared to discuss this subject, yet I can hardly refrain from getting upon my feet in behalf of 3,000 patients, if not more, who die annually in the United States of carcinoma of the rectum. My friend, Dr. Magee, has ably pointed out where the trouble is. It is that we do not make the diagnosis. Why do we not? Possibly that is well illustrated by the fact that not more than a few days ago I asked a certain medical man who is an excellent diagnostician what were his results of examination of the feces. He replied that he had found it difficult to get down to making examination of the feces as often as he should. Gentlemen, that is the trouble with many of us. That portion of the anatomy seems to be one that is well overlooked, and therein lies the fault. And I stand ready to say that from my limited experience I cannot hold the medical profession blameless in this matter—no, I cannot. Men come into their offices and women come into their offices with unmistakable symptoms of bowel involvement and it is passed off—passed off in a way that almost amounts to criminal negligence. Cancer of the bowel is quite as amenable to radical treatment, with excellent results, as anywhere else in the body, provided you do it in time, which means that you must recognize it in time. I am going to speak of one case, just simply in behalf of the three thousand for whom, without early diagnosis, there is no hope. During the winter a certain physician wrote me concerning a patient upon whom I had operated four or five years ago on account of an inveterate trifacial neuralgia and it had recurred, in fact I have operated one since and it recurred. About two weeks afterwards I operated on him, and while yet in the hospital the physician said to me that the patient had dysentery and was not getting along well, requesting me to make an examination. I did so and found cancer of the rectum. The patient lived long enough to have a third operation for trifacial neuralgia.

Dr. C. F. Wahrer, Fort Madison—I want to show you a picture. The patient said she was thirty-three years of age and that she was getting ready to be married. And she said, "Doctor, have you got a good salve for the piles?" "Have you the piles?" I asked her. "Yes." "How do you know you have them?" "Dr. So-and-so told me so." "Did he treat you?" "Yes," was the reply. "How long?" "For two years." "Were you ever examined?" "No, I wouldn't let any doctor examine me." I am not going to name any names or blame anybody—you can draw your own conclusions. I said to the patient, "I will examine you, go into the other room and pre-

pare yourself." "I will not be examined," was the reply. Her married sister being present persuaded her and I made the examination. I scarcely had introduced my finger when it came in contact with a membranous, semi-cartilaginous obstruction within the passage and this covered a tumor or lump or whatever you wish to call it the size of my fist. She said she had eight to ten evacuations every day of a brownish, ill-smelling fluid, but a real bowl movement containing fecal matter was scarcely ever obtained more than once or twice a week. I inquired whether she wanted to do some shopping in town, she answered yes, and I said, "Go and do it and I will have some medicine for you when you come back," handing her sister a piece of paper upon which I had written, "Please come and see me privately at the earliest opportunity." She returned in fifteen minutes and I said to her, "Your sister about to be married has a hopeless and inoperable cancer of the rectum from which she will die inside of three months." The prognosis was correct. Draw your own conclusions!

Major D. J. Glomset, Des Moines—In discussing this subject I think it would be well to bear in mind that Dr. McCarthy limited his theme to carcinoma of the rectum. In presenting the subject of carcinoma of the bowel, I find that there is a tendency among surgeons to look up a number of statistics which include recovery from cancer of the rectum and the sigmoid. The same thing is true also when they are discussing cancer of the uterus and reporting their successes. When we consider the pathology of cancer of the uterus this is rather amusing, because cancer of the cervix of the uterus and cancer of the body, are two different propositions. One is curable and the other one is not. And in cancer of the rectum the same thing applies; that is, the sigmoid and the ascending colon can very well be compared, as far as cancer is concerned, to cancer in the body of the uterus, whereas cancer of the rectum compares very practically with a cancer of the cervix, except that, because of the fact that the rectum is so wide and is so readily distendable it takes a growth a long time before it produces any symptoms whatsoever. Therefore unless one makes routine examination of all of the patients who come to one's office for this trouble there is no doubt that a great many of them are going to be overlooked. Furthermore, people who have this disease often do not come to the doctor's office early for the simple reason that they are not sick until they begin to notice the growth. And when the patient and the doctor definitely notice carcinoma of the rectum then recurrence is going to take place no matter what operation is used.

Dr. McCarthy (closing): Dr. Glomset covered about what I had intended to say in closing. I do not think that I was dodging the point here at all. In all cases of carcinoma of the rectum that can be diagnosed, that have any particular involvement so that there is no question about the diagnosis, so far

as I am personally concerned I think these people will be far better off if they will leave the doctors alone. In order to be able to look at the matter in a different way I will have to see patients that get along better than any of those that have gotten along so far to ever make me change my mind. And these cases that have been operated on, have been operated on by men of recognized ability and not by just the occasional operator. I am rather of the impression that the patient will get along as well under one man's hands as another if one can do away with the possibility of the patient dying of hemorrhage or a bungling operation; but as far as the end-result is concerned it does not make any difference who operates. When you find that you cannot preserve the continuity of the bowel and the function of the rectum and sigmoid, these cases should be left alone. The patient who has no money and lives in the mountains is better off than the patient with money who has access to the man with a knife.

CHRONIC CATARRHAL OTITIS MEDIA*

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The events which have transpired since our entrance into the World War have cast much new light on the fields of medicine and surgery to the extent that much of our former knowledge has been revolutionized, and along surgical lines much has been added. The Carrol-Dakin method of wound sterilization has become a fixed method of distinct value and its principles are applicable in a broad field. Bone grafting had never before been practiced to such an extent and its limits have by no means been reached. Nerve lesions have been mastered because of the unlimited amount of material for study, the confirmation of the diagnosis on the operating table, and the result after healing was complete and regeneration begun. Nerve grafting and nerve transplanting have been successfully done in numbers and kind never before attempted. Surgery of the chest has expanded beyond previous limits with correspondingly good results.

We in special work have not fared as well, yet those who had the privilege of examining large numbers of men will agree, I am sure, that some benefits were derived from their experience in service, even though new and startling developments were not made and their value proved in large series of cases as has been true in other lines, such as orthopedic, general and neurological surgery.

It was my privilege to be eye, ear, nose and

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throat examiner on a local board for one year, during which time over 1100 examinations were made. Eleven months in an army hospital, doing the same work, gave me an opportunity to make some observations and deductions, though records from which to obtain actual percentage are not available.

The one condition which impressed me more than any other, and to which I respectfully ask attention for a few minutes, was impaired hearing, which it is my belief, exists in a much larger percentage of our people than we would have been willing to believe, and while the suppurative type of otitis media has been seen a great many times, and the acute catarrhal type frequently, chronic catarrhal otitis media has been seen with much more frequency than all other conditions combined. This statement is based upon observations made on men before entering service and men in service, and does not include injuries in the war zone where acute traumatic conditions were rather frequent.

The majority of those observed were good physical specimens, many of them above the average, yet would not test up to the normal standard of hearing. These defects were rarely noticeable in conversation and in many instances the individual was not aware that there was any loss of the hearing function, yet hearing of 16-20—12-20 or even lower was not infrequent, with a number of very deaf who were limited class men if at all serviceable. In private practice this class of cases is observed, but only in the well advanced type where tinnitus has become annoying and deafness well marked, does it become the chief complaint, and we are implored to give relief to a condition, the treatment of which is almost as unsatisfactory as is that of tetanus after the symptoms present warrant a diagnosis.

A patient may state that his trouble came on suddenly, a perfectly truthful statement as far as his observation goes, but a carefully taken history will reveal numerous attacks of acute catarrhal otitis dating back perhaps to childhood and described as a head cold with a stuffy feeling in the ears, sore throat, etc., usually occurring during the winter months, and when an examination is complete we find that the case is a chronic one with little encouragement as to the results of the treatment. Some of these cases respond well to treatment and are discharged as cured, others fail to follow up treatment until a permanent result is obtained, reduction of hearing results corresponding to the location and amount of pathological changes in the tympanum. In my own experience, even the cases that do well are subject

to recurrence and by the time middle life is reached the hearing is distinctly reduced. Many are dissatisfied because of the time required to effect a result and fall into the hands of the quack who will promise them anything for the ready money he receives.

It is highly probable that the majority of cases have their beginning with the acute infections of childhood, in which acute catarrhal otitis is common, particularly in scarlatina, measles and tonsillitis. The suppurative form, because of the painful character and visible discharge, is more frequently recognized.

The prevention of ear complications in the acute infections is not possible, but we can say of the treatment that a great deal may be added. Most cases get little if any treatment, this being particularly true in the rural communities where the treatment prescribed by the general practitioner is of little or no value, the trained nurse is seldom used, and the specialist never called except in case of mastoid involvement, and then as a rule very late. Among this class "ear ache" like "growing pains" are a necessary evil thrust upon childhood and is not regarded seriously even by the average physician.

Various factors enter into the etiology. The extent of microbic invasion of the middle ear by such organisms as inhabit the naso-pharynx and mouth, while not fully determined, is probably rather constant and their existence there may be prolonged over a considerable period of time without exciting any inflammatory reaction until the character of the secretions and the vitality of the tissues are changed by agents, either external—of which exposure is the most common, or internal—of which toxæmia is the most constant factor, making their propagation rapid and destructible. When such condition subsides only to recur again and again, with normal tissue elements being replaced by abnormal cellular and scar tissue, contracting adhesions impair the function of the tympanum and the degree of hearing lessens accordingly. Bogginess of the eustachian tube prevents normal ventilation of the tympanum, the secretions are retained, deafness is present and perhaps tinnitus, the membrana tympani is dull and retracted with some marginal inflammation, a clinical picture which is present at some time in every case of catarrhal otitis media.

In the milder and more recent cases we may be able to effect a cure, but in the majority, even though the condition improves and the membranes of the middle ear take on a normal appearance, there is loss of the hearing function to some extent. It may not be enough to bar one

from an important position, but we have all seen individuals, owing to defective hearing relegated to the rear ranks to make room for the man, usually younger, who has all functions active. Toxæmias other than intestinal, such as from bad teeth, infected sinuses, septic gall-bladder, purulent kidney, osteomyelitis, alcohol and tobacco, are agents exerting a positive influence on the middle ear.

Of all the recognized causes of chronic catarrhal otitis media it is the opinion of the writer that the faucial tonsil, because of its location and structure, plays the leading role. We often see large embedded tonsils, situated high in the fossa, where by pressure they interfere with the blood and air circulation of the middle ear. The small fibrous tonsil with its dense adhesions interferes in like manner and either may distort the eustachian tube orifice. The effect on the middle ear is positive and the first essential in the treatment of such a case requires no suggestion. The condition of the tubal orifice is best studied with the naso-pharyngoscope which gives a direct view with all tissues occupying their normal position, which is not true when the ordinary mirror is used. The amount and character of the secretions can readily be studied here as well as that from sinus orifices.

Because of its structure the tonsil is a hotbed of infection, from which organisms are transmitted to all parts of the body by the blood stream as well as by the lymphatics. Of this we have ample evidence. I have not removed the tonsils in all cases of chronic catarrhal otitis which have come to me for treatment, but it is a fact that the cases where the tonsils have been removed have made the most rapid progress and the results have been more permanent.

There are a number of physicians who insist that too many tonsils are removed. We cannot question that needless operations have been done, but well may a few tonsils be sacrificed for the good done the many, and a much greater percentage of tonsils should be removed in the young as a means of prevention of otitis media in all its forms. The profession of today takes the stand that it is better to prevent disease than to cure it, and when a cure is not possible as is true in chronic catarrhal otitis media, our only hope and reward is the prevention of a similar development in others.

Any child who has been the victim of scarlet fever, measles, tonsillitis or septic sore throat, has had a catarrhal otitis of some degree, if not the suppurative form. They are, with few exceptions, the possessors of diseased tonsils, are sub-

ject to frequent attacks of sore throat with more or less severe adenitis, and with each attack otitis is present to some extent.

Normal nasal breathing is impossible when the naso-pharynx is filled with a mass of diseased adenoid tissue, the turbinates are boggy and oozing a thick sticky secretion. Under such circumstances the middle ear and nasal sinuses are improperly ventilated, which is also true of the lungs, at the expense of the general economy. Children with such obstruction are often credited with inattention and are as frequently punished because of it. Their growth is stunted and their school progress is poor.

To occupy time with a discussion of things which are familiar enough to each of us seems unnecessary, but there are conditions that we overlook, and a little stimulation now and then cannot hurt the best of us, and improvement of the present situation is possible with an effort in the right direction.

The greatest interest of parents is centered in their children and they are always ready to listen to, and in most instances accept advice from their family physician on matters that concern the welfare of their children, but will heartily resent suggestions from other sources.

The committee appointed by the A. M. A. on conservation of vision and hearing whose activities began in 1913, was a machine started in the right direction, though the results have not been of such consequence as we might desire. To be effective, any action taken along this line should include the county medical societies through which all physicians may be reached, and from them and through them can information such as will be of greatest value reach those who have not as yet been enlightened on matters pertaining to conservation of vision and hearing.

Would it not be practical and possible for this section to launch a campaign of instruction through the county societies, outlining the more effective methods of isolation in contagious diseases, care of the mouth, nose and throat, information as to the meaning of frequent "head colds" with fullness of the ears, sore throat, and the importance of prompt attention. It is possible to accomplish a great deal of valuable work in this way without expense to any one.

Concerning the treatment of chronic catarrhal otitis media, little need be said. Few changes occur in the general routine which is quite uniform. Pads spring up, are used by a few for a time. Personally I have nothing to offer either new or old, but am a firm believer that the old axiom—"An ounce of prevention is worth a pound of

cure"—is as applicable to otitis media as to any other disease.

Discussion

Dr. C. P. Frantz, Burlington—I don't know whether I caught the gist of some of the remarks in the paper, but it seemed to me there was a little contradictory statement, if Dr. Agnew feels like joining the ranks of some of the California men who advocate the removing of the tonsils of every child by the time it is four years old. He advocated the removing of tonsils as a preventive to otitis media. We don't know who are going to have otitis media, and it is pretty hard to draw the line. I think the Doctor said, too, that tonsils are the greatest menace to otitis media of any cause. Perhaps that is true; he did not mention adenoids at all. I think adenoid tissue hanging down over the eustachian orifices constitutes a greater menace, unless the tonsils are badly diseased and threaten the whole tract. In advocating the removal of tonsils as a preventive of otitis media we don't know just when the indication would apply, unless it be recurrent otitis. I think there are a good many cases of severe tonsillitis and recurring tonsillitis in which the ear has never been affected. I have found many in my practice where parents refused to accept operative procedures for their children. One trouble is present everywhere: we have some physicians that are old fossils, plainly speaking, and never advocate the taking out of the tonsils. They can't do it and they won't learn it; they would rather piece them along and let them acquire rheumatic and other conditions than to permit specialists to take them out. I think, too, perhaps some of them have the idea that some tonsils are removed for revenue only, and we are subject to that sort of an accusation if we take out tonsils which are not offending. If there is any ear trouble, and tonsil trouble with it, the tonsils must in every case be removed, and the adenoids.

Dr. W. D. Small, Waterloo—I want to heartily commend the paper; I think the author takes a sane position in the matter. I don't believe in removing all tonsils, but a lot of them ought to be removed. There may be a few of them removed that should not be.

Dr. F. W. Dean, Council Bluffs—I wish to say that Dr. Agnew has written a good paper. There is one point, however, that he spoke of after he got through the paper that I have a little doubt about, i. e., whether the Red Cross should take up that work. It seems to me that that work should be done by the schools. We found when the same proposition was put up to our local Red Cross organization, which comprises three counties, and they gave us an estimate of what they wanted done. The best we could do to carry it out would be \$10,000 a year. If we were to go around with a Red Cross drive now for \$10,000 a year to conduct that work, I think we would be turned down. It is pretty hard to educate the public, but it could be done through the schools.

If the schools in a certain town are not large enough, a number of towns could combine and get a nurse to do the work, and have it conducted in connection with the schools instead of the Red Cross.

Dr. J. G. Roberts, Oskaloosa—I don't know that I can add anything to the discussion; I simply want to add my testimony to the seriousness of this condition. Several months in the service gave some of us an opportunity of studying many thousands of these cases, and a number of them came to the attention of the aurist. I am simply astounded at the number of cases of otitis media in young, healthy soldiers, the pick of the country, a majority of whom did not know they had a thing the matter with them. I say it is a condition that is very serious for the future of the hearing of the race. I had opportunity to study these cases in a southern camp and a northern camp, and I can't say that there was a particle of difference in the number of cases that came to our attention, that came in for other conditions entirely, and yet we found a condition of otitis media in various stages. As to what we may do by treatment and what we may do to prevent it I am not so optimistic; I am skeptical myself as to what we can do when the condition becomes established. There may be some that know more about the treatment of these cases, but it is my experience that when otitis media becomes established you cannot do a thing for it, and the best to do is to tell the patient to go home and save his money, before he gets into the hands of a fellow who wants to make some money out of him. I think that has been an eye-sore in the profession for many years, and I am one who is willing to sacrifice a few innocent tonsils and get by the distressing results that will be found in so many instances, especially in the examination of young, healthy individuals, who did not know that there was anything the matter with them and would not have been under a doctor's observation in civilian life.

Dr. F. G. Murphy, Mason City—I thought possibly the Doctor would say more about the treatment of the tonsils, and I wonder if any of you have been following out the line of treatment carried out by the British surgeons in the army in Egypt that were reported about three years ago. The surgeons there reported that they had been following out this line of treatment very successfully in chronic otitis media of the suppurative type. The soldiers were instructed to clean out their ears every two hours with cotton properly placed on a match, and they were given a solution of 50 per cent alcohol and about 10 grains of phenol to the ounce, and four or five drops of that was placed in the ear once a day. Dr. Roberts' remark made me think of that, because this treatment can be carried out by the patients altogether.

Dr. W. W. Pearson, Des Moines—He was talking about dry catarrh.

Dr. Murphy—Well, even in the dry catarrhal troubles. I want to emphasize what the Doctor said

about the intestinal infection—that is, the inflammation of the upper respiratory tract from constipation and improper feeding of children. I think enough attention is not paid to that. Another thing that is quite neglected is the proper treatment of the children's teeth. Some of them will leave a lot of loose teeth in with pus at the bottom of them; others will take them all out. The best information that I can gather is that it is best to remove all of these loose teeth with pus at the bottom. The idea used to prevail that the permanent teeth would not come in straight if the first teeth were pulled out too soon, but many of our best men disagree with that and remove them, and the children get along much better. Sometimes a chronic tonsillitis appears which disappears quite readily when the teeth of these children are removed.

Dr. Frantz—I would like to ask for the definition of "dry catarrh."

Dr. Murphy—I did not mean to use the term; I was referring to what I take it he means here. I think the ordinary meaning of the term "dry catarrh" is where there is no suppuration of the tympanum.

Dr. Agnew—I heartily agree with what Dr. Frantz said about educating the family physician, but he is a hard individual to educate. It is our duty, nevertheless, to make an effort in that direction. Who else have we to depend on to disseminate such knowledge as must come to these people if they are going to use any preventive measures in regard to such conditions as this or any other? He is the man who reaches the family by contact with them, and should have that knowledge. We don't see them, and there are a great many general practitioners who don't believe in much active work along this line. I believe that he knows, but through carelessness he does not put into practice the knowledge that he actually possesses in regard to the care of the sick. In mentioning "sick" I mean those affected with contagious diseases.

PRINCIPAL CAUSES OF DEATH

CENSUS BUREAU'S SUMMARY OF MORTALITY STATISTICS FOR 1917

The census bureau's annual compilation of mortality statistics for the death registration area in continental United States shows 1,068,932 deaths as having occurred in that area in 1917, representing a rate of 14.2 per 1,000 of population. Of these deaths, nearly one-third were due to three causes—heart diseases, pneumonia, and tuberculosis—and nearly another third resulted from the following nine causes: Bright's disease and nephritis, apoplexy, cancer, diarrhea and enteritis, arterial diseases, influenza, diabetes, diphtheria, and bronchitis. The death-registration area of the United States in 1917 comprised

twenty-seven states, the District of Columbia, and forty-three cities in non-registration states, with a total estimated population of 75,000,000, or about 73 per cent of the estimated population of the United States. (The territory of Hawaii has recently been added to the registration area, but the figures given in this summary relate only to continental United States.)

The deaths from heart diseases (organic diseases of the heart and endocarditis) numbered 115,337, or 153.2 per 100,000 population. The death rate from this cause shows a noticeable decrease as compared with 1916, when it was 159.4 per 100,000. There have been fluctuations from year to year, but in general there has been a marked increase since 1900, the earliest year for which the annual mortality statistics were published, when the rate for heart disease was only 123.1 per 100,000.

Pneumonia (including bronchopneumonia) was responsible for 112,821 deaths, or 149.8 per 100,000. This rate, although much lower than that for 1900 (180.5) or for several succeeding years, is higher than that for any year during the period 1908-1916. The lowest recorded rate for pneumonia was 127 per 100,000 in 1914. The mortality from this disease has fluctuated considerably from year to year since 1900, the general tendency having been downward until 1914 and upward from 1914 to 1917.

Tuberculosis in its various forms caused 110,285 deaths, of which 97,047 were due to tuberculosis of the lungs. The death rate from all forms of tuberculosis was 146.4 per 100,000, and from tuberculosis of the lungs, 128.9. The rate from tuberculosis of all forms declined continuously from 200.7 per 100,000 in 1904 to 141.6 per 100,000 in 1916, the decrease amounting to nearly 30 per cent; but for 1917 an increase is shown. Until 1912 more deaths were due to tuberculosis than to any other single cause, but in that year and during the period 1914-1917 the mortality from tuberculosis was less than that from heart diseases, and in 1917 it fell below that from pneumonia also.

Bright's disease and acute nephritis caused 80,912 deaths, or 107.4 per 100,000. The mortality rate from these diseases has increased from 89 per 100,000 in 1900, with some fluctuations from year to year, and since 1914 the increase has been continuous.

Apoplexy was the cause of 62,431 deaths, or 82.9 per 100,000. The rate from this disease increased gradually, with occasional slight declines, from 1900 to 1912, and since 1913 the increase has been continuous.

Cancer and other malignant tumors caused 61,452 deaths, of which number 23,413, or 38 per cent, resulted from cancer of the stomach and liver. The rate from cancer has risen from 63 per 100,000 in 1900 to 81.6 in 1917. The increase has not been continuous, there having been three years—1906, 1911 and 1917—which showed declines as compared with the years immediately preceding. The decrease in 1917 as compared with 1916, however, was very slight—from 81.8 to 81.6. It should be borne in mind that at least a part of the increase in the death rate from cancer may be apparent rather than real, being due to a greater degree of accuracy in diagnosis and to greater care on the part of physicians in making reports to registration officials.

Diarrhea and enteritis caused 59,504 deaths, or 79 per 100,000. The rate from this cause has fallen somewhat in recent years, having been 90.2 in 1913, and is much lower than the corresponding rate for 1900, which was 133.2. More than four-fifths of the total deaths charged to these causes in 1917 were of infants under two years of age.

Arterial diseases of various kinds—atheroma, aneurism, etc.—resulted in 19,055 deaths, or 25.3 per 100,000. The rate from these causes increased continuously from 6.1 in 1900 to 25.6 in 1912, since which year it has fluctuated somewhat without showing any pronounced change.

Influenza was responsible for 12,974 deaths, or 17.2 per 100,000. This rate is the highest shown for any epidemic disease in 1917, but is much lower than the corresponding one for the preceding year, 26.4 per 100,000. The influenza rate, which fluctuates greatly, was higher in 1901, when it stood at 32.2, than in any subsequent year prior to the occurrence of the recent epidemic.

Deaths from diabetes numbered 12,750, or 16.9 per 100,000. The rate from this disease, although slightly lower than in 1916, has risen almost continuously since 1900, when it was 9.7.

Next to that for influenza, the highest rate appearing for any epidemic disease in 1917 was for diphtheria, 16.5 per 100,000, representing 12,453 deaths. The rate from this disease was somewhat higher in 1917 than in the preceding year, when it stood at 14.5 per 100,000.

Bronchitis caused 12,311 deaths, or 16.3 per 100,000. This rate is lower than that for any preceding year except 1916, when it was 16.2. The proportional decline from 1900, for which year the bronchitis rate was 45.7, to 1917, amounting to 64 per cent, was greater than that shown for any other important cause of death.

TYPHOID FEVER

Typhoid fever resulted in 10,113 deaths, or 13.4 per 100,000. The mortality rate from this cause also has shown a remarkable reduction since 1900, when it was 35.9, the proportional decrease amounting to 63 per cent. This highly gratifying decline demonstrates in a striking manner the efficacy of improved sanitation and of the modern method of prevention—the use of the antityphoid vaccine.

MEASLES, WHOOPING COUGH AND SCARLET FEVER

These three children's diseases were together responsible for 21,723 deaths of both adults and children, or 28.8 per 100,000. The rates for the three diseases separately were 14.3, 10.4, and 4.2, respectively, as compared with 11.1, 10.2, and 3.3 in 1916. As in 1913 and 1916, the deaths due to measles outnumbered those resulting from either of the other diseases, but in 1914 and 1915 whooping cough caused the greatest mortality. In every year since and including 1910, as well as in several preceding years, measles has caused a greater number of deaths than scarlet fever.

EXTERNAL CAUSES

Deaths due to external causes of all kinds—accidental, suicidal, and homicidal—numbered 81,953 in 1917, corresponding to a rate of 108.8 per 100,000 population.

The greatest number of deaths charged to any one accidental cause—11,114, or 14.8 per 100,000—is shown for falls. The rate for this cause varies but slightly from year to year.

Next to falls, the greatest number of accidental deaths—8,649, or 11.5 per 100,000—resulted from railroad accidents and injuries. This rate is greater than the corresponding rates for 1914, 1915 and 1916 (10.7, 9.9 and 11.3, respectively) but is lower than that for any year from 1906—the first year for which deaths from this cause were reported separately—to 1913, inclusive.

Burns—excluding those received in conflagrations and in railroad, street car, and automobile accidents—were responsible for 6,830 deaths, or 9.1 per 100,000. The death rate from burns was greater than that for the preceding year, 8 per 100,000, and was also greater than the rate for any earlier year covered by the Bureau's records, with the exception of 1907.

Deaths from automobile accidents and injuries in 1917 totaled 6,724, or 8.9 per 100,000 population. This rate has risen rapidly from year to year, but not so rapidly as the rate of increase in the number of automobiles in use.

Accidental drowning caused 5,550 deaths, or 7.4 per 100,000. This rate is considerably less than that for any preceding year since 1910, and is also decidedly below the average for the decade 1901-1910.

Deaths due to accidental asphyxiation (except in conflagrations) numbered 3,375, or 4.5 per 100,000. This rate is somewhat higher than that for any year during the preceding ten-year period.

Mine accidents and injuries resulted in 2,623 deaths, or 3.5 per 100,000. This rate is greater than the rates for the preceding three years and for 1912 but is lower than those for other recent years.

Deaths due to injuries by vehicles other than railroad cars, street cars, and automobiles numbered 2,326, or 3.1 per 100,000. The rate from this cause has declined somewhat during the past ten years, probably because of the decrease in the use of horse-drawn vehicles.

Deaths resulting from street car accidents numbered 2,277, corresponding to a rate of 3 per 100,000. This rate is greater than those for the two years preceding and is the same as that for 1912, but is less than the rates for other recent years.

Machinery accidents caused 2,112 deaths, or 2.8 per 100,000, a rate materially greater than that for any preceding year covered by the Bureau's mortality records.

Hot weather caused 1,964 deaths, or 2.6 per 100,000. This rate is considerably above those for most of the year covered by the Bureau's records, but is somewhat lower than 2.9 in 1916 and is far below 5.3 in 1911. The rate from this cause naturally varies greatly from year to year.

The number of suicides reported for 1917 was 10,056, or 13.4 per 100,000. This rate is the lowest shown for any year since 1903.

Other deaths due to external causes, including homicides, totaled 18,353, or 24.4 per 100,000.

SKIN GRAFTING*

JNO. F. PEMBER, M.D., Janesville, Wisconsin

It has fallen to our lot in past years to have under our care patients, who have suffered from burns so extensive that large areas have to be covered with grafts. The care and management of these cases provided the thought for this paper.

By grafting, the period of healing is reduced from months or years to weeks or days, and in addition, grafting saves many an extremity without which amputation would be necessary as a

result of cicatricial contraction. It also relieves much suffering, and no doubt occasionally prevents death from amyloid degeneration of the kidneys. The three important methods of grafting are those suggested by Reverdiu, Wolf and Thiersch, respectively.

Reverdiu's technique consists in lifting a small portion of skin with a needle, removing it with curved scissors, and placing this island with many like it on the denuded area. These grafts at first apparently disappear owing to disintegration of the epidermis; but later appear as bluish-white spots from which the epithelial growth proceeds in all directions.

Wolf's method is accomplished by excising a piece of skin one-sixth larger than the area to be filled, removing all the fat from its under surface, and placing it in the defect from which all the scar tissue has been removed, and in which the graft is held by pressure of the bandage. *Hair* thus transplanted usually falls out and regenerates irregularly. In this connection it is interesting to note that when skin is transplanted from a negro to a white, the pigment gradually disappears and vice-versa. Skin from a white man grafted on a negro gradually becomes pigmented.¹ Healing of a Wolf graft occurs within three to five weeks.

If the graft has a larger area than thirty-six centimeters, necrosis is almost certain to occur, and therefore, despite certain advantages, the use of this method is restricted and is being replaced by pedunculated flaps which assure results.

The third method, the Thiersch graft, is the one we have most frequently used. It has four points of marked value, viz: greater resistance, less shrinkage, and better cosmetic effect, and lessened period of healing. Such a graft will grow on any fresh surface, except upon a tendon denuded of its sheath, or a bone denuded of its periosteum. It goes without saying that the surface to be grafted must not only be free from necrotic tissue, but must be covered by a healthy, firm granulation tissue, and one from which a stained smear under the microscope shows a bacterial count of six or less organisms to the field. There are many ways of getting the area to be grafted into this condition. We most frequently employ a boric-alcohol dressing for two or three days; and on the evening before applying the grafts the area is painted with a solution of three and five-tenths per cent iodine in alcohol. Frequent saturation of the dressings on the raw area with Dakin's solution (neutral solution of

*Read before the Tri-State District Medical Society, Iowa, Wisconsin and Illinois.

1. Greenfield, G. D., *But. Med. Jour.*, 1917, April 14.

chlorinated soda) or the application of a four per cent solution of dichloramine to the surface to be grafted, soon give a practically sterile field. The appearance of the field should not be used as the only guide as to when grafting may be done. A count of the number of bacteria in a field of a smear from it would often prevent too early grafting and a consequent loss of grafted skin from infection.

Long experience taught us that grafts from the patient took best, and that skins from some relative or friend "took" better than others. Now, by use of the Moss method of blood grouping, we are able to determine beforehand the individual whose skin will "take" when grafted to the patient's wound, and those whose grafts would be lost. Consequently we test the agglutination of the patient's cells and serum, and use as a donor, only an individual who falls into the same blood group as the patient. As a matter of safety we use a donor whose Wassermann is negative.

The patient himself is the best donor; and in most instances we have been able to obtain from him enough grafts to cover his wounds. The epithelium readily recovers the areas denuded by graft-cutting razor, and within six weeks the identical area is again capable of yielding excellent grafts. It is possible to use the same area repeatedly if necessary. Under proper conditions we have found that 90 per cent of a homo-graft will take, whereas an iso-graft, viz., such as grafts taken from a donor, have only averaged 60 to 80 per cent of "takes" even though the donor and patient fall in the same Moss group.

The preparation of the surface from which the grafts are to be taken depends much on the preference of the operator. The method we have used is extremely simple, consisting in cleansing with benzine followed by rinsing with a four per cent solution boric acid, and the application of a sterile dressing until such time as the grafts are cut.

The technique of cutting Thiersch grafts is so well known that comment is scarcely necessary. Sharp razors are imperative. The surface from which the graft is to be taken must be held taut. As in other surgical procedures, practice and skill are necessary in obtaining thin grafts of the desired width and length. One assistant should devote his entire attention to teasing out the edges of the graft, and adjusting them after they have been placed upon the wound. The grafted surface should be absolutely bloodless and dry, and all air bubbles pressed out from beneath the grafts. If the grafts are large, an occasional "buttonhole" here and there will serve as an out-

let for the serum which may form beneath them, and will keep the graft from being "floated up" from the wound and lost.

The dressing of the grafted area and its after care are of much importance. At the present time the dry or open dressing is very popular. Wire basket is fitted over the wound, and strapped on with adhesive to prevent removal, the wound being left exposed to the air.

We have, however, obtained somewhat better results by the use of strips of gutta-percha tissue moistened with normal salt solution and placed in a criss-cross manner over the wound. Dry gauze is placed over this and the dressing left undisturbed for several days. This dressing is reapplied at intervals until healing has occurred. Instead of the gutta-percha tissue, cloth net saturated with parafine may be applied, and if this sticks at removal the application of petroleum for a few hours will permit removal without displacement of grafts.

Among the instances in which the Thiersch graft has served us well are two which we would like to mention. In the first there was a complete avulsion of the scalp and of the forehead down to the eyebrows and including the root of the nose. Thiersch grafts resulted in a short period of convalescence and the cosmetic effect is good. The woman wears a wig and would scarcely attract your attention. The second patient, in addition to many other severe burns, lost all the skin of the right arm and forearm. Thiersch grafts again resulted in comparatively short convalescence. There are no contractures and the movements of the entire arm and hand are unimpaired. The cosmetic effect is also good.

Discussion

Dr. Emil G. Beck, Chicago—We have employed a method for the last four years which in a great measure obviated the necessity of skin grafting. Large surfaces of granulating surfaces may be covered with skin by promoting the growth of the skin from the edges. The skin does not grow over the granulating surface because the granulations grow higher than the skin. In other words they overlap the skin edges and the skin cannot grow upwards. If you can keep a level surface between the edges of the skin and the granulating surface, the skin will grow from the cut border and cover a surface as large as ten inches square without any skin grafts. We have employed the following method: The edges of the skin are cleaned of granulations, and then a strip of adhesive plaster, so placed as to cover both the granulating surface as well as the skin. In twenty-four hours the strips are removed and you will notice a bluish border around the skin wound. The next twenty-four hours the wound is just covered by

gauze and again in twenty-four hours the strips of adhesive plaster are applied. In this way you may watch the gradual progress of the skin grow over the entire surface. I have employed this method in many cases. I have not employed skin grafting very much except on very large surfaces where I wanted to hasten it. Here I want to mention a few points in technique. I agree with the last speaker that you should not leave spaces between the different grafts. In fact, I usually use one graft right in the center of the wound. The dressing that we employ is vaseline. We have our surface perfectly dry from blood, and then the skin graft is placed and dressed with gauze and after it adheres, especially around the edges, it should not overlap. Then vaseline is poured over it and dressing put on.

Member—I did not understand if this method was applicable to burns.

Dr. Beck—It can be applied to burns, to fresh denuded surfaces after operation. For instance, after amputation of the breast, when you have not enough skin to cover the denuded surface.

Member—How can you get away from skin grafting when you have to cover the whole scalp? I have seen the method applied by Dr. Beck, but when you have whole chest, leg or part of a leg, it seems to me that grafting is the best method. Then again, I never have had any luck with epidermal grafts. It certainly does shorten up the period of convalescence a great deal, and I think that the method of carbolic acid might be all right for small wounds. I think Dr. Beck's method would be all right for medium wounds, but if you have extensive wounds, I don't see how you can cure them by any method other than by grafting. If Dr. Beck can explain how it can be done, I would be glad to hear how it can be done.

Dr. Beck—We happen to have a great many burns from the Electric Co., in Chicago and one our internes has charge of them. We have cases of extensive burns of the chest and arms. Some of them cover pretty near all of the chest and all of the back. We have not done any skin grafting on these cases. It is surprising that entire surfaces have been covered with skin after treatment with parafine. I have seen in Cincinnati a case demonstrated in which the entire scalp had been treated by parafin spray and the entire skin has regenerated on the head. I don't think that the objection raised is valid. I think it can be used on large surfaces, but I do not say that skin grafting should be entirely discarded. I use them myself. The doctor is perfectly correct that it shortens the duration. I think, however, you will find a great satisfaction if the patient has time to wait for the cure by my method. I don't advise the use of mucous membrane for skin and vice-versa.

SUPPLEMENTARY LIST OF IOWA MEDICAL MEN IN WAR SERVICE

In the March number of the Journal of the Iowa State Medical Society we published a list of about eight hundred fifty medical men who enlisted for war service. We obtained this list from private sources and checked up from the records in Des Moines. The list was a long one secured at a considerable expenditure of time and work. The greatest difficulty was in securing information as to rank at the time of discharge from service; for this information we were largely dependent on newspaper clippings. We had the option of writing to each doctor separately but the delay in securing replies discouraged any attempt in this direction, we therefor concluded to publish our list trusting the errors would be corrected by letters from interested medical officers. The purpose of publishing this list was to make a permanent record of the men who patriotically offered their services and their lives for the welfare of the country. Three letters have been received and we trust every physician whose record is not correct will write us at any early date so that we may prepare a supplementary list.

THE NEW FORM OF KINDERGARTEN SPEECH TEACHER

Before the kindergarten section meeting of the National Society for the study and correction of speech disorder, Walter B. Swift, M.D., of Boston, read a paper upon the new kind of kindergartener. He said in part as follows:

Summary—Cleveland's high stand in education has lately been raised still higher by the preparation and use of a new kind of kindergartener. She is the speech instructed kindergartener, in her own kindergarten school she gets instruction in speech correction. This instruction she carries into her speech kindergarten class and there develops the speech capacity of her pupils. This is a new form of speech teaching. It is a new form of kindergartener. Speech correction given to the kindergartener greatly increases her efficiency. It increases her understanding of human nature, it enables her to do Americanization work down in the kindergarten.

The understanding of little children is very difficult at best. Speech correction in the kindergarten enables the kindergartener to understand the little child in a new and deeper way. By proper speech correction early, may be kept from wasting a year or two of school life.

The Journal of the Iowa State Medical Society

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THE RECORDS OF MEDICAL SOCIETIES

There is an unfortunate weakness in medical organization and that is in the matter of records. We have had an opportunity to study this subject in a very particular way. We have for several years studied the thoughts and feelings of the first physicians who located in Iowa from the records of the local societies and to some degree from the State Society records. It has been an interesting study; we can almost see and hear the sturdy pioneer doctor of fifty or sixty years ago express his views as to the best way to treat this disease or that disease, or express his indignation or his approval of the conduct of some neighboring physician, more perhaps because we were there, than from the fullness of the recorded discussion. When the few who were present are gone, what will the doctor of the future know of what was said or done in the early days of his Society? Let him look over the records and see what he can find. We have been doing that and what do we find? Almost nothing, with a few exceptions here and there. Pottawattomie County Medical Society has full records, which are sacredly deposited in the public library at Council Bluffs. There will be found the views of that leader of medical men, Dr. Donald McCrae, whose strong sense of right lead us to love and admire him; of Dr. P. J. McMahon, the first president; Dr. Henry Osborn; Dr. P. B. MacKay, Hart, McGovern and others; men who laid a firm foundation for professional activities in Council

Bluffs which are now well upheld by a younger generation of physicians. Marshall county, Louisa county and Lee county follow close behind.

We have searched diligently to know more about the men who laid the foundation for the practice of medicine in Iowa. From the records of the State Medical Society, we have learned of John Sanford, of D. L. McGugin, J. M. Robertson, Enos Lowe, John Elbert, J. C. Hughes, A. G. Field and others. We have found that on a certain date the county society was organized, reorganized, and again reorganized, just why we do not know. We are lead to infer that internal dissensions were the chief cause; loss of interest is reported in some instances. In some counties, the records of the county societies were lost sometime by fire, but mostly we take it from neglect; the records of meetings were written with little regard to the future. Why are the records of Pottawattomie so complete? Because the right man was elected secretary, who felt the duties imposed upon him. It was a thoughtful body of men who selected the man best fitted for the work and kept him until another was found to fill the place. They did not elect a good fellow but probably the most uncompromising man in the society, who had a system.

It appears to us after a somewhat extended study of the matter that every county society should adopt a system of records which should include a somewhat detailed account of all the meetings and an outline of the discussions, put in form for publication in the Journal of the State Medical Society and that a complete file of the Journal should be bound for the use of the secretary's office, if for no other reason than a preservation of the records. The editor of the Journal does not feel that justice is done the Society in trying to edit the newspaper reports. Many times these reports are so irrelevant and so immaterial that he cannot use them. Biographical sketches of deceased members should be written out and preserved by the Society. Resolutions should be preserved, all of which will be published.

As we have said repeatedly, the secretary is the most important officer in the Society and he can make the Society successful. There is a silent influence growing out of a medical society which cannot be measured. If the members of the Society must quarrel, let them do so, but do as the lawyers do, after the fight is over take a drink and "forget it." Worse things could be done than invite dentists and graduate veterinarians and pharmacists, they will not hurt you—anything, that will increase medical interests.

Let us extend the silent influence of the Society and make it worth while to pay the small fee or dues early, to maintain the necessary expenses of the local and State Society, make the Society worth the investment and the payment of dues the most cheerful act of the year.

That physicians and surgeons, materially responsible for medical education in Great Britain and France, are interested in our methods of teaching medicine is shown by the fact that a commission from these countries has visited the United States for first hand information.

The group consisted of: Sir Humphrey Rolleston, London, Royal College of Physicians of London; Colonel H. J. Waring, London, Royal College of Surgeons of England; Dr. Nonman Walker, Edinburgh, representing the Triple Qualification Board of Scotland; Professor G. Roussy, physician; Professor Desmarest, surgeon representing the Faculty of Medicine, University of Paris, and Professor H. C. Connell, Kingston, Ontario, president of the Medical Council of the Dominion of Canada.

Among the institutions visited was the University of Iowa, at Iowa City. President Jessup, who has displayed remarkable skill in organizing a medical faculty and a wide vision in developing the needs of a real medical school, received the commission and extended every facility for an examination of the different departments under the guidance of the department heads. The distinguished courtesy with which the commission was received would disarm open criticism, but every expression seemed to indicate their approval of the work of the University. One fact in particular appealed to them and that was the generous provision of the state in reconstructing unfortunate children; those suffering physical deformities and from certain errors in metabolism. The work of Professors Steindler and Byfield—to whom too much praise cannot be given—will be of great economic value to the state.

Dr. Bierring, secretary of the National Board of Medical Examiners, who has this group in charge while in this country, has displayed a degree of skill in arranging the itinerary that will reflect much credit on the American profession.

EUROPEAN INSTRUCTORS ARRIVE IN MINNEAPOLIS TO INSPECT WORK AT UNIVERSITY

Commission on Tour to Observe Progress of Science in United States

Five distinguished medical instructors of England, Scotland and France, members of a commission

from the medical colleges of the three countries appointed to visit the United States in the interests of reciprocal relations between medical educators of Europe and America, arrived in Minneapolis this morning to inspect work done by the college of medicine at the University of Minnesota.

The immediate purpose of the commission was declared to be two-fold: To observe by extensive visits to the medical schools of the country just what America is accomplishing in improving medical education, and to visit the national board of medical examiners in Philadelphia next month, to observe the American system of examination.

Change from Usual Custom

"This commission is a new sort of thing," Col. H. J. Waring of London declared, "because physicians from England and France have not commonly come to this country for medical information. We are seeing some new and interesting things in medical instruction."

Dr. Norman Walker of Edinburgh, who visited this country thirty years ago and paid much attention to medical education here at the time, said that the progress in medical instruction during the last thirty years had been beyond belief. The tour thus far has been a revelation to him, he said.

"We visited yesterday the medical school at the University of Iowa in Iowa City," he said. "The work done there is superior to that of any school we have visited thus far. Especially in its work for children, the Iowa school, doing all its work in and for and by the state, is an institution of which to be proud."

Broader Scope Urged

The greatest need from a medical point of view today, in this country as well as his own, Dr. Walker said, is to make the best medical attention available for the middle class.

"Strangely enough your country, as well as ours, has made excellent provisions for giving medical attention to the poor. Your large hospitals are very adequately equipped with ward space to accommodate the poor man who must have medical care. And your rich people, of course can buy the best medical service and attention. But the middle-class man, who has neither the money nor poverty to recommend him, falls between the accommodations provided for the charity patients and those available for the man with money."

The visiting commission is observing with interest any provisions made in this country to solve the problem of giving the middle-class patient an even chance with the poor and the rich, Dr. Walker said.

American Education Practical

The most striking thing about American medical education, as compared with that of European countries, is its practical character, Dr. E. E. Desmarest of Paris said. In every institution so far visited, the French doctor said, the most impressive characteristic has been this very practical tendency.

"Your whole system of medical education is so very different from our own, so differently grounded." Dr. Desmarest declared, "that its very strangeness is opening our eyes to new possibilities. One of the best features of a visit such as we are now paying, is that of opening new vistas to unaccustomed eyes."

After its tour of inspection of the medical college at the University of Minnesota today, the commission will leave late today for Rochester, Minnesota, to study the work being done by the Mayos. The physicians have previously visited Tulane University in New Orleans and Washington University and St. Louis University, both at St. Louis. Most of the principal medical schools of the country are to be visited.

THE SALVATION ARMY

The Salvation Army is seeking to expand the usefulness and functions of its sixteen major social activities and to that end is putting into effect what it calls the Home Service Program for 1920.

The program proposes that every county in the nation shall be offered the opportunity of co-operating with the Salvation Army in social service and gain thereby many benefits. The rescue and maternity homes, the girls' boarding homes, industrial homes for men, workingmen's hotels, free employment agencies and the like are to be made available to every community, providing the community desires such service.

County advisory boards composed of leading citizens are rapidly springing into existence and it is reported that practically every county in the state will be co-operating with the Salvation Army within a short time.

No new corps are to be established unless such should be requested. The fifteen other activities, however, are to be made available to communities virtually for the asking.

CANCER IS INCREASING

Cancer, probably the most dreaded of all diseases, is on the increase in America and throughout the world in spite of the fact that it is curable if treated early, says the United States Public Health Service. In its death toll in the United States cancer already ranks among tuberculosis, pneumonia, heart disease and diseases of the kidney, and it is much more feared than any of these. This is because of the ignorance of the public, the difficulty of detecting a cancer in its early stages and the fact that when it has reached the recognizable stage it has gone beyond the curable stage.

The medical world today believes that work for the control of cancer should be largely similar to that so successfully carried on in tuberculosis; that is, it

should consist mainly in widespread education of the general public to recognize cancer in its precancerous state, it should train the people at the first alarm to seek the advice of a competent physician, and it should keep the public freely advised of the latest scientific knowledge concerning cancer, its causes, prevention and cure.

The first and most important requirement in such a campaign of education is that the public change its viewpoint. The United States Census Bureau for 1917 gave a total of 61,452 deaths from cancer as compared with 112,821 from pneumonia, 110,285 from tuberculosis, 115,337 from heart disease and 80,912 from kidney diseases. So it will be readily seen that cancer already ranks among the leading causes of death in this country.

Cancer is apparently increasing. The recorded death rate shows about two and one-half per cent more cases every year. It has risen from 62.9 deaths per 100,000 of population in 1900 to 81.6 in 1917. Some of this increase is unquestionably due to an improvement in recording and gathering vital statistics and to better diagnosis, but it is generally believed that these factors do not alone account for the increase.

THE UNIVERSITY OF WARSAW RESEARCH LABORATORY

Thanks to the American Red Cross, Warsaw has a new medical laboratory. It is the finest in Poland, and one of the most complete and up-to-date in the world. The equipment, which is new throughout, was transported across the Atlantic and half Europe, complete from the simplest phial to the largest and most expensive instruments, including a complete research microscope with a magnifying power as great as any in the world.

The unloading and unpacking of the large shipments of laboratory material was not accomplished without difficulty. At first refugees were employed, but they were found in many cases to be so physically weak from prolonged underfeeding that the Red Cross doctors themselves finally rolled up their sleeves and helped to unload the heavy freight.

No gift of the American people to suffering Poland is more valuable than this great hospital laboratory, which is the eighth laboratory opened by the Red Cross. In all these laboratories American chemical stains are used instead of the German chemicals with which it used to be thought that no other product could compete. American peptone is likewise used exclusively in fermentation processes, replacing the German, formerly the world standard. The services of these laboratories are greatly adding to the efficiency of the fight being made in Poland against the spread of typhus and cholera, both of which are still dangerously prevalent. The new laboratory, under the direction of Major Bruce Mohler of Fremont, Ohio, is in charge of Dr. Placida Gardner of Los Angeles, with Dr. Gladys Vaughan of Wolfeville, N. S., as chief bacteriologist.

SOCIETY PROCEEDINGS

Harrison County Medical Society

The Harrison County Medical Society met at Woodbine, Thursday, March 25. Dr. Max Flothow was elected president, and Dr. H. N. Anderson, vice-president. The meeting endorsed the employment of a public health nurse and also advocated holding a county clinic, similar to the one held here last year somewhere in the county in the near future.

Johnson County Medical Society

The Johnson County Medical Society held an interesting and helpful session at the Commercial Club rooms recently.

Papers were given by Dr. C. E. Van Epps, on The Moron, and J. C. Kessler, on Tuberculosis of the Skin.

Dr. Harry B. Jenkinson gave a case report on Influenza and Appendicitis.

Marion County Medical Society

The Marion County Medical Association met at Pleasantville Thursday, April 8. The meeting was held in the American Legion Club Rooms. There was a short morning session, at which time the minutes of the preceding meeting a year ago were read; applications for new members considered and then adjournment for lunch.

At the afternoon session papers were read as follows: Pneumonia, Dr. H. E. White, Knoxville; Albuminuria, Dr. E. P. Bell, Pleasantville.

The officers of the Marion County Medical Association are: J. R. Wright, Knoxville, president; J. J. Sybenga, Pella, vice-president; C. S. Cornell, Knoxville, secretary-treasurer.

The medical men present at last Thursday's meeting were as follows: H. E. White, H. L. Bridgman, J. R. Wright, C. S. Cornell, Knoxville; E. C. McClure, Bussey; A. M. Merritt, E. P. Bell and E. A. Bare, Pleasantville.

Palo Alto County Medical Society

The Palo Alto County Medical Society met in regular session at the city hall, in Emmetsburg on the afternoon of April 28, 1920.

Dr. G. Baldwin of Ruthven read a paper on, Some Problems in Obstetrics. It was decidedly interesting, because of the Doctor's long service on the prairies of northwestern Iowa and the unique way in which he has had to meet the complications as they have arisen.

The question of fees for insurance examinations came in for discussion. It is the will of the Palo Alto County Medical Society that all old line insurance companies be charged the minimum of \$5 for examinations, the members pledging themselves to live up to this agreement.

Polk County Medical Society

The business side of the medical profession, with special reference to the revision of fees for medical attention, was the subject of an address made before the Polk County Medical Association April 20 by Dr. Harry J. Bosworth of Chicago, at its meeting at the Harris-Emerly auditorium.

In his address, which was delivered before one hundred physicians of the county, Dr. Bosworth said: "In the last few years the cost of everything has practically doubled or trebled. Notwithstanding this, the fees of some physicians have remained at prewar levels. An upward revision must be made. Not only the fees of his private patients, but also the fees allowed under terms of the workmen's compensation laws, for civil service examinations, for services in court, for signed documents, insurance examinations, and other similar examinations are things on which a general understanding of relative values would be mutually beneficial."

A committee was appointed to investigate and report to the association at next meeting regarding the establishment of a new minimum for doctor's fees.

Poweshiek County Medical Society

The spring meeting of the society was held at Grinnell on Tuesday, the 27th of April, at 7:30 P. M. Meeting at the Community Hospital.

The following was the program: The Laboratory as Related to Our Local Needs, Dr. E. S. Evans; The Local Branch of the State Board of Health Laboratory, Miss Vivian Shumway; Relationship of the Laboratory to Practicing Physicians, Dr. Henry Albert of Iowa City.

Ringgold County Medical Society

On May 5 the Ringgold County Medical Society held a meeting at Mount Ayr in the Odd Fellows Hall.

The following officers were elected: President, Wm. Horne, M.D., Mount Ayr; vice-president S. W. De Long, M.D., Tingley; secretary-treasurer, Samuel Bailey, M.D., Mount Ayr; censor, one year, E. J. Watson, M.D., Diagonal; censor, two years, M. F. Hannely, M.D., Mount Ayr; censor, three years, C. M. Walker, M.D., Kellerton; delegate, Samuel Bailey, M.D., Mount Ayr; alternate, J. W. Hill, M.D., Ellston.

Following the business transactions there was general discussions on Needed Legislation, The County Nurse Problem, Tuberculosis, and Typhus Fever.

Scott County Medical Society

A regular meeting of the Scott County Medical Society was held Tuesday evening, March 30, in the new St. Luke's Hospital.

Program—Dr. S. G. Hands, Sinus Headaches; Dr. C. L. Barewald, Gonorrhea; Dr. H. M. Decker, Osteomyelitis; Dr. Frank B. Lusk, Some Things About Empyemata.

Scott County Medical Society

One of the most important actions for the benefit of regular medicine took place in Davenport this month.

The newly elected mayor, who is a prominent physician asked the medical society of Davenport to select one of their members for appointment as city physician.

This is a step in the right direction and places this important sanitary office outside of politics.

It is of course very evident that a medical society is far more capable of choosing the right man than any political organization. We hope this move will receive the attention that it merits all through our country and that other cities will see the wisdom of this course.

Robert E. Jameson, M.D.,
Sec'y Scott County Medical Society.

Story County Medical Society

At the meeting of the Story County Medical Society held May 5, Dr. H. W. Barbour of Nevada, was elected president; Dr. Peter Joor, Maxwell, vice-president and Dr. B. G. Dyer of Ames, secretary-treasurer. Dr. B. G. Dyer read a paper on Focal Infections and Dr. W. S. Conkling of the U. S. Public Health Service gave a very interesting talk on the Problem of Venereal Control. A large number were in attendance and enjoyed dinner together preceding the program.

Tama County Medical Society

The regular meeting of the Tama County Medical Association, of which Dr. A. J. Farnham is president and Dr. Parsons secretary, was held at Dysart Monday, April 12. Dr. A. W. Erskine of Cedar Rapids, was the speaker, giving a paper on X-Ray and Radium.

The following officers were elected: President, Dr. Allen, Tama; vice-president, Dr. W. C. Wagner, Traer; secretary-treasurer, Dr. A. A. Pace, Toledo.

Webster County Medical Society

At the meeting of the Webster County Medical Society Tuesday evening, March 9, a committee consisting of Dr. W. W. Bowen, Dr. A. E. Acher and Dr. J. W. Kime was appointed to draw up resolutions of regret for the death of Dr. A. L. Belt. The doctors attended the funeral of Dr. Belt in a body.

Burlington City Physicians

In a meeting of physicians and surgeons of the City of Burlington, an increase of costs for service was agreed upon, to become effective at once. Only the more common forms of medical or surgical service were effected by the action of the physicians and surgeons, but a committee was named to decide on proper rates for other classes of medical or surgical attention.

Rates of charge for calls to homes was raised from \$2 to \$3 a visit.

Keokuk Physicians Club

The Keokuk Physicians Club met at the Hotel Iowa and after a dinner served in the Tiffany room listened to an address by Dr. James Herbert Mitchell of Rush Medical College, Chicago, Illinois.

At the business session, Dr. J. F. Stowe of Basco, Illinois, and Dr. J. C. Taylor were elected honorary members. Eight other applications for membership were received. The new diagnostic clinic which the Visiting Nurse Association is to establish soon and which has been heartily endorsed by the Physicians Club, was discussed at the meeting, and the following doctors were appointed in two groups of three each to serve the clinic on the two days a week when it will be opened: Doctors Frank M. Fuller, William M. Hogle, William Rankin, J. H. Wilson, O. T. Clark, E. G. Wollenweber. The clinic will be held in a room on the second floor of the Y. W. C. A. building.

Rockwell City Physicians

Rockwell City physicians and their wives recently formed a medical club to promote amity in professional and pleasure in social relations. Meetings are held twice a month, once as a scientific gathering and once as a social affair. At the scientific meeting it is planned to study the case reports put out weekly by the Doctors Cabot of the Massachusetts General Hospital. On April 20, the entire profession took dinner together at the Brower Hotel, later attending the movies in a body, really getting more than the war tax out of a mediocre film from being together.

Southwestern Iowa Medical Society

The Southwestern Iowa Medical Society met at Creston, March 19, and presented the following program: The Problems of Venereal Disease Control, Dr. Wilbur S. Conkling, Des Moines; Psychiatry and the General Practitioner, Dr. Max E. Witte, Clarinda; Comparison of Acute Respiratory Infections of Past Two Years, Dr. Walter L. Bierring, Des Moines; Epidemic Encephalitis, Dr. A. D. Dunn, Omaha, Nebraska; Home Modification of Cow's Milk for Infants, Dr. H. M. McClanahan, Omaha, Nebraska; Malnutrition in School Children, Dr. Fred Moore, Des Moines; Spastic Constipation, Dr. J. T. Strawn, Des Moines; The County Medical Society, How May its Efficiency be Increased? Discussed by members.

Dr. Fred Watts, the Greater Community specialist on Diseases of Children, gave some interesting and enlightening facts disclosed from his analysis of the examinations made by nurses of the school children. It was disclosed that 35 per cent of the children examined in Union County are under weight. Of 2,400 children examined in Des Moines, 42 per cent were found under weight.

Miss Elba L. Morse, supervisor of Red Cross nurses for southern Iowa, and director of Child Welfare for the Greater Community territory, was also present, and explained the proposed children's clinic which is to be established by the Greater Community Association.

The next meeting of the Southwest Iowa Medical Society will be held at Murray.

The officers of the society are as follows: President, Dr. R. E. Green, Creston; vice-president, Dr. C. E. Ruth, Des Moines; secretary, Dr. J. S. Coontz, Garden Grove.

Tri-State Medical Society

The Tri-State District Medical Society of Illinois, Iowa and Wisconsin, will hold its next annual meeting at Waterloo during the first week in October, 1920. Many prominent men of the country will make addresses on this occasion. Dr. H. G. Langworthy, who returned Friday from the meeting of the trustees and convention committee of the society held at Milwaukee, said that the preliminary plans for the fall convention were well under way. Eminent men of the medical profession from Boston, New York, Philadelphia, Baltimore, Chicago, Minneapolis, St. Louis and other cities have already accepted places on the program.

Dr. G. V. I. Brown, well known oral surgeon of Milwaukee, was elected president of the Tri-State District Society to fill the place of Dr. W. B. Helm, of Rockford, Illinois, deceased, at the Milwaukee meeting. Many important educational matters relative to the three states were also under discussion.

INTERNATIONAL CONGRESS OF SURGERY

The Fifth International Congress of Surgery will be formally opened at the Faculte de Medecine, Paris, July 19, at 2 P. M., to be followed immediately by a discussion on blood transfusion, introduced by Dr. Jeanbraun, Brussels. Tuesday, there will be papers on cardiovascular surgery, by Drs. Tuffer of Paris, Sencert of Strassburg, Allessandrini of Rome and Charles Goodman of New York and a discussion on surgical hematology, by Drs. A. Depage and Goovaerts of Brussels and Evarts A. Graham, St. Louis. Fractures of the femur will be the topic of discussion at Wednesday's session, to be opened by Drs. Patel of Lyons, Meurice Sinclair of the British Army Medical Corps, and Kellogg Speed, Chicago. The entire session on Thursday will be given over to papers on the treatment of tumors by radium and roentgen rays, by Drs. Regaud of Paris, Neville S. Finzi of London, Giuseppe Mioni of Rome and Robert B. Greenough, Boston. Papers on the prevention and treatment of tetanus by Drs. Donati of Modena, Cummins of London, Sieur of Paris, and Astley P. C. Ashhurst, Philadelphia, will conclude the scientific program on Friday. Clinics will be held in the Paris Hospitals on Monday, Wednesday and Friday at 9 A. M., and business meetings are sched-

uled for Tuesday and Thursday at 10 A. M. In connection with the congress, there will be an international exposition of fracture apparatus, which will not be limited to members of the congress. Applications for space should be made not later than July 15 to Dr. M. Auvray, 50 rue de Pierre Charron, or at the Faculte de Medecine, rue de l'Ecole de Medecine, Paris, and should contain information as to the name, title and address of the exhibitor, the title of the exhibits, the amount of space required, expressed in square meters, and whether the objects are to be exhibited in glass cases or on tables, shelves or walls. Social entertainments will include a reception to the president of the congress, Dr. William W. Keen, Philadelphia, on Tuesday evening, and a banquet on Wednesday evening both at the Palais du Quai d'Orsay. The American committee of the congress includes Drs. Charles L. Gibson, New York City, Richard H. Harte, Philadelphia, and Lewis L. McArthur, Chicago. Physicians who desire to attend the congress are advised to make steamer reservations at the earliest possible date, as there is every indication that the demand for accommodations will exceed the capacity of available steamers.

Jour. A. M. A.

MEDICAL NEWS NOTES

Burlington is to have a clinic for venereal diseases, with Dr. E. J. Voigt in charge. The board took the necessary action and Dr. E. J. Voigt was named physician in charge.

More than one hundred persons, including nearly all local physicians, their wives and members of the nursing corps of the Bellevue and Hershey hospitals, attended the banquet in honor of the city's three oldest practicing physicians at the Country Club Friday night, March 26. Doctors H. M. Dean, E. B. Fulliam, Sr., and F. H. Little, all of whom have practiced medicine for more than forty years in Muscatine, were the three honor guests at the affair. Dr. Dean, who incidentally is "dean" of the local medical fraternity, having been engaged in practice since 1867, responded to the toast, My Fifty Years of Medical Practice in Muscatine, giving an interesting sketch of the career to which he has devoted the greater part of his life.

The Eighth District Nurses Association met at the Mary Greeley Hospital, Ames, March 3, and elected the following officers: First vice-president, Sister Beradetta of Fort Dodge; second vice-president, Miss Ida Hedrick of Ames; secretary, Miss Mauretta Zigrang of Livermore; treasurer, Miss Catherine Diehl, superintendent of Mary Greeley Hospital, Ames. The directors for three years named were Miss Hazel Morgan of Boone and Miss Mary Fittler of Fort Dodge. Miss Diehl served refreshments to the visiting nurses and entertained Misses M. A. Brouhard, Hazel Morgan, Laura Luetjen and Mrs.

Henry Hardie, all of this city, and Mrs. Elizabeth Linbloom Jones of Ft. Dodge at luncheon. The next meeting of the association will be held in Fort Dodge at a date to be determined later.

Miss Alice Chamberlin of Nevada expects to leave the middle of April for San Francisco, from which port she will sail on April 29, for Ceylon, down in the Indian ocean. From there she will go over into India where she will enter the missionary field. Miss Chamberlin graduated as a nurse from the Presbyterian Hospital in Chicago some years ago.

Dr. Jeannette F. Throckmorton has been invited by the Royal Institute of Public Health under the patronage of King George, Queen Mary, the Prince of Wales and Albert, King of the Belgians, to deliver her lecture, "Fashions and Public Health," before the Congress of Brussels.

The Bethesda Home for Crippled Children, William Jepson foundation, for which articles of incorporation have been filed in the office of county recorder will be located on a 280-acre farm north of Stone Park, owned by Dr. William Jepson. The home is established under the auspices of the Northwest Iowa Conference of the Methodist Episcopal Church. It will provide a home for crippled children, promote industrial schooling and carry on a general humanitarian work among disabled children.

Three hundred thousand dollars are to be provided to enlarge the Lutheran Hospital at Des Moines. Plans are being formulated to make this excellent hospital one of the most attractive institutions in the country.

PERSONAL MENTION

Dr. Murphy of Cedar Falls, has purchased the practice of the late Dr. Lane and will locate in Cascade as soon as he can make arrangements. He is a graduate of St. Louis University. He has served one year in the St. Louis City Hospital, and after being discharged from service spent eight months in Providence Hospital, Detroit, Michigan, as house physician.

Dr. E. R. Earwood of Fort Dodge has opened an office in the Carver block for the practice of medicine. Dr. Earwood is a graduate of Drake Medical College. He has recently returned from three years' service in the medical reserve corps in the army. Previous to that he practiced medicine in Madrid, Iowa.

Dr. O. W. Lowry is seventy-five years old today! (April 22) And cutting a wisdom tooth! "It's a keen sensation," says Dr. O. W. Lowery, 2808 Brattleboro, Des Moines, whose neighbors will be surprised at the revelation of his years. For there's nothing in the doctor's bearing to suggest the sunset of life. When the elevator in his office building is slow he trips up

the stairs as blithely as you please. Hardy ancestry and a youth spent largely in the out-of-doors are responsible for his physical vigor, the Doctor believes. The Doctor was born in the territory of Iowa, on April 22, 1845.

Dr. F. N. Mead, one of the leading physicians of Cedar Falls, was elected to the Teachers College faculty March 9, to become head of the department of physical education at the beginning of the fall term 1920. This action was made by the finance committee of the state board of education upon the recommendation of President H. H. Seerley.

Dr. V. E. Herbert of Sioux Rapids was chosen as delegate to the national democratic convention to be held in San Francisco.

Dr. Leon C. Havens of the State University of Iowa College of Medicine Faculty, has been called to a chair in Johns Hopkins University, Baltimore, Maryland, and has accepted. He is an alumnus of Harvard, and came to Iowa University from the war service. He has been acting head of the department of epidemiology since Dr. Birge's sudden death.

Dr. R. L. Russell, formerly agent for the Sac and Fox Indians and superintendent of the Indian Sanatorium and who recently went to Washington, D. C., as medical advisor in the Indian Service, has resigned from this position to become passed assistant surgeon in the United States Public Health Service. Dr. Russell will probably be placed in charge of the Tuberculosis Hospital at Greenville, South Carolina. This institution has nearly 800 patients. The new position carries with it an increase in salary.

Dr. H. Burns, 313 Twenty-eighth street, Des Moines, was appointed by Commissioner of Public Safety Ben Woolgar to succeed Dr. L. E. Allen as police physician.

Dr. Manahan and Dr. Thompson have formed a partnership for the practice of medicine in Blairs-town.

Dr. Russell Williams has located in Story City.

Dr. C. B. Roe has resumed practice in Creston.

Dr. W. M. Young of Jefferson has returned home from New York City where he has been taking a post-graduate course in diseases of the eye, ear, nose and throat.

Dr. Don M. Griswold has been appointed state epidemiologist to fill the vacancy created by the death of Dr. E. G. Birge. Dr. Griswold will be the head of the division of hygiene, preventive medicine and epidemiology of the department of pathology and bacteriology of the University of Iowa.

Dr. Andrew M. Peterson, a graduate of the Medical Department University, Nebraska, has located in Elk Horn for the practice of medicine.

Dr. F. L. Smith was recently elected president of the Newton Country Club.

Have you seen a Boston Brindle bull dog running about loose? It belongs to Dr. F. A. Minassian.

Dr. W. L. Allen of Davenport, examiner for the Guarantee Life Insurance Co., recently attended a meeting of executive officers at French Lick Springs.

Dr. A. F. Fritchen has located in Decorah. Dr. Fritchen was in the United States medical service with the rank of captain in the 88th Division.

Dr. A. B. Odgen has permanently located in Mount Ayr.

Dr. Carl J. Shaffer, for sixteen years an active practitioner of Carson, has moved to 120 West Clarendon street, Huntington Park, California, June 1, 1919. Dr. Shaffer retains his membership in the Iowa State Medical Society.

OBITUARY

Dr. Edward Chancery Earle of Waukon, died recently at St. Petersburg, Florida. Dr. Earle was born in Pennsylvania in 1833, came to Waukon in 1854. Enlisted in Co. B, 12th Iowa Infantry for the Civil War and was mustered out as Colonel of the 70th, U. S. Colored Regiment. He attended medical lectures at Rush and graduated from Jefferson Medical College in 1867. After receiving his degree, Dr. Earle returned to Waukon and formed a partnership with Dr. J. H. Hedge. Later he established a drug store. Dr. Earle was active in business affairs and did much to develop the interests of Waukon.

Dr. J. P. Lange of Cascade died at Mercy Hospital February 29. He was born in Castle Grove, Iowa, June, 1880 and in 1905 graduated from Creighton Medical College. Soon after graduation he commenced the practice of medicine in Cascade.

Dr. J. F. Richardson, for many years a successful practitioner in Keokuk county, died at his home in Waukegan, Illinois, March 18. Dr. Richardson was born in Vermillion county, Ill., July 30, 1836, studied in the office of Dr. Flint of Ottumwa, and graduated from the College of Physicians, Keokuk in 1864.

Dr. L. B. Carson died at his home in Maquoketa, March 10, from cerebral hemorrhage. Dr. Louis B. Carson was born at Waterloo, Iowa, February 11, 1873, graduated from Hahnemann Medical College, Chicago. He took post graduate work at Bellevue Hospital, New York.

Dr. Carson was a prominent practitioner of medicine and surgeon in Maquoketa, for many years.

Dr. Samuel D. Risley, a distinguished eye surgeon, died at his home in Philadelphia recently at the age of seventy-five years. Dr. Risley formerly lived in Davenport.

Dr. Mary Harding died at 11:45 Wednesday morning, March 24, following an illness of several days.

Dr. Harding came to Newton soon after the close of the Civil War and since that time has practiced as a homeopathic physician. She is well known throughout the county and has a host of friends who will learn with sincere regret of her death.

Dr. J. Lindahl of San Diego, California, died at his home in that city March 19, from a stroke of paralysis. Deceased formerly lived and practiced his profession at Boone, but some ten years ago removed to Denver, Colorado, and later to the California city. He was fifty-three years of age, and is survived by a wife and daughter.

John Lindahl was born in a humble home in Sweden in 1864. Inspired by an honorable ambition to make the most of life, he came to America when seventeen years of age. He entered Drake University, now Iowa State Medical College. By earnest work he soon took a prominent place in the university, and graduated with the highest honors in his class. From Drake University he went for further medical study to Chicago, where he became the warm personal friend of the famous physicians, Dr. Fenger and Dr. Senn. Later he studied also in Berlin, Stockholm and Copenhagen. Thus thoroughly equipped for his profession, he returned to practice medicine in the land of his adoption.

He was a member of the County, State and American Medical Associations, and his opinion was regarded by them as high authority.

In 1906 he was called to take charge of the Swedish tuberculosis sanitarium, "Bethesda," at Denver. After three successful years he resigned, and went into general practice in that city. His practice soon became large and exacting.

Mrs. Joseph J. Flannery, wife of Dr. Flannery, who was burned in a gasoline explosion April 9, died at her home, 4215 Grand avenue, Des Moines.

Mrs. Flannery and her mother, Mrs. P. J. O'Meara, were cleaning a silk waist when the fatal accident occurred. Mrs. O'Meara was severely burned about the face and arms.

Mrs. Flannery was twenty-eight years old and the only child of Mr. and Mrs. P. J. O'Meara. She was born and educated in Des Moines and spent a few years in an academy at Missoula, Montana.

MARRIAGES

Dr. G. L. Venable and Miss Georgia Jinks of New Sharon were married in the chapel of St. Luke's Hospital, Chicago, Illinois.

Dr. Taylor Norton, Estherville to Mrs. Townsend of Monroe at Spirit Lake.

Dr. H. J. Meis of Sioux City to Miss Helen Biegel-meyer of Yankton, South Dakota.

Dr. William Hornady of Udel to Miss Clemantine Wolf, 957 Twenty-first street, Des Moines, both are graduates from Drake University.

Dr. Lee Kiel of Sioux Center to Miss Jennie De Long of Orange City.

Dr. J. W. Wilson of Riverside and Miss Maude Armstrong of Chicago.

Dr. W. H. Davis of Iowa City and Miss Agnes McEwan of Reinbeck.

(Edited by Lieut.-Col. W. S. Conkling)

SUMMARY OF WORK OF THE DAVENPORT
CLINIC, FOR YEAR ENDING DECEMBER
31, 1919

Number of Wassermanns.....	1309
Number of slides for gonorrhea.....	1283
Number of positive syphilis.....	209
Number of rendered negative by treatment.....	27
Number of positive gonorrhea.....	137
Number of rendered negative by treatment.....	5
Number of doses salvarsan given.....	1306
Number of doses mercury (intramuscular and intravenous)	753
Number of douches.....	756
Number of cases reported with more than one infection	34
Number of cases reported with more than two infections	5
Number of females under eighteen years of age	32
Number of males under eighteen years of age.....	26
Number of cases referred to other physicians.....	45
Average daily attendance.....	22

SUMMARY OF WORK OF THE DES MOINES
CLINIC FOR YEAR ENDING DECEMBER
31, 1919

Number of Wassermanns.....	1092
Number of slides for gonorrhea.....	1283
Number of slides for spirochaete.....	6
Number of doses salvarsan given.....	1413
Number of doses mercury (intramuscular and intravenous)	1179
Number of permanganate injections (male).....	3015
Number of douches.....	3335
Number of protorgol and argyrol injections.....	610
Number of prostatic massages.....	45
Number of cases sounds passed.....	49
Number of minor operations.....	19
Number of major operations.....	4
Average daily attendance.....	37

Report of the work done by other clinics will be given in the near future.

CASES REPORTED TO IOWA STATE BOARD
OF HEALTH FOR SIX MONTHS ENDING
DECEMBER 31, 1919

	Gonorrhea	Syphilis	Chancroid
July	183	77	9
August	181	44	7
September	286	100	12
October	322	111	12
November	325	89	14
December	278	100	17
Total.....	1575	521	71

Through information received on report blanks used by physicians as to the source of the infection, a number of cases have been placed under treatment. Physicians should report source of infection whenever possible. If this is unobtainable, the patient should be instructed to have the individual responsible for the infection go to a competent physician for examination and treatment.

The best results from treatment can be obtained only by all physicians accepting a personal responsibility for their patients and have them continue treatment until discharged. All syphilis cases, even though considered cured, should have subsequent Wassermanns at regular intervals. Deaths in the United States from venereal disease for the year 1919 was equal to the losses sustained by Great Britain in any one year of the Great War. Death from syphilis each year almost equals the deaths due to tuberculosis and pneumonia combined.

Annales Des Maladies Veneriennes, September and October, 1919.—Levy Bing, Lehnhoff-Wyed and Carbay: "A new arsenical compound: sulfarsenol. Advantages of the new preparation with which these doctors have experimented for six months are: 1. Greatly decreased toxicity. 2. Practically complete stability of its solutions. 3. Perfect tolerance. 4. Very great efficiency. Three hundred thirty-three cases reported in which drug used. "The action of sulfarsenol on the clinical symptoms of syphilis is at least equal to that of neosalvarsan; we have even sometimes had the impression of obtaining as rapid cures as those obtained with '606'. This is only an impression, as experiments have not been carried on long enough for dogmatic assertion."

Leon Bizard and Paul Blum: Gonorrheal Urethritis in Women. Affection far more common than usually thought. Janel and others declare that in every prostitute either the urethra or Bartholin's glands are affected. It is the persistence of the gonococcus in the urethral mucosa which explains reinfections after apparent cures and contagions from women apparently healthy.

Page 634. Abstract of article by Picaard on Argirine in the treatment of gonorrheal infection. (Giorn. ital. delle malat. vener. e della pelle, July, 1919.) Finds it superior to other remedies.

Paris Medicale, October 4, 1919—A. Sezary: The Nature of Latent Meningitis in Syphilitics. The author's idea was formerly that meningitis in syphilis was caused directly by the treponema; now thinks the treponema is localized primarily in the nervous centers, not in the membrane and that meningitis is a secondary reaction.

La Presse Medicale, September 4, 1919—E. Jeanselme: Lecture to American students, June 10, 1919. Important stages of French syphilography. Very interesting article tracing the history of syphilis in France from 1497 when syphilitics were treated as lepers and all were ordered to leave Paris, except citizens so affected who were warned not to appear

on the streets. In early days various venereal diseases were not distinguished from each other, mercury used for all and pushed to salivation, etc. Contributions of various French syphilographers (Fournier, Metchnikoff, and Roux, etc.) discussed.

October 8, 1919—Paul Revant: When should the Cerebro-Spinal Fluid of a Syphilitic be Analyzed? Reports results of 1,000 spinal punctures on 1,000 patients at different periods of syphilis. Finds the largest percentage of positive results between the fourth and tenth years of disease. Deduces that the most important time for test of spinal fluid is the fourth year. Important as patients will not consent to many repetitions of test owing to pain caused.

October 22, 1919—Milian criticizes treatment of syphilis of the nervous system with novarsenical medication, as advocated by Sicard, Haguénau, and Kudelski. Of five cases Milian found that four developed erythema and one died. Considers method insufficiently tested to be advocated.

October 27, 1919—Raoul Bensaude and Lucien Rivet: Syphilis of the Stomach. Discussed under 1. Syphilitic ulcer. 2. Pseudo-cancerous form, syphilitic tumor. 3. Gastric syphilis, inflammatory form (linitis). 4. Stenosis, ((A) Syphilitic stenosis of the pylorus, (B) medio-gastric stenosis, bilocular stomach of syphilitic origin, (C) Syphilitic stenosis of the cardia. 5. Gastric syphilis and gastric crisis of tabes. Importance of correct diagnosis. Manifestations of syphilis must be noted. In default of these, Wassermann reaction, careful clinical examination including x-ray, etc. Finally therapeutic proof of syphilis is of value. Arsenic administered; and if improvement is immediate and marked, diagnosis no longer in doubt. Specific treatment by mouth is well tolerated in syphilis of the stomach and gives almost immediate amelioration.

British Medical Journal, November 8, 1919—Abstract of paper by Castax and Mathis, on the Syphilitic Origin of Gastric and Duodenal Ulcer. (La Prensa Med. Argentina, May 1, 1918.) They consider real cause of gastric and duodenal ulcer is syphilitic infection inherited or acquired. Before thirty years, 90 per cent of these ulcers are caused by inherited syphilis. Early adoption of anti-syphilitic treatment may effect a complete cure.

Suermondt, W. F.: Syphilis of the Stomach. (Nederl Tjdschr, v. Geneesk, October, 1919.) Believes this rare. Among 243 autopsies of syphilis by Chiari, stomach lesions found in only 1.2 per cent. Barbier in 1904 was able to collect 116 cases from literature. In many years work as gastric specialist, Hayem only met four cases. (See also December 6.)

Abstract of Paper by Castax (La Prensa Medica, Argentina, January 20, 1919.) A sign of late hereditary Syphilis consists in bifurcation of spine of first lumbar vertebra. Found in 30-35 per cent of late inherited syphilis.

November 22, page 655—Mott, F. W.: Normal and morbid conditions of the tests from birth to old age in 100 hospital asylum cases. Fluid in vesicular

seminales of twelve cases of general paralysis of insane. In eleven spermatozoa found proving them capable of fertilizing just before death. (Cont. in issue December 6.)

Abstract of paper by Mery and Genin—(Bull. Soc. de Pediat. de Paris, January 21, 1919.) Rheumatoid arthritis and congenital syphilis. Case of arthritis in female infant aged one year. Wassermann plus, improved under mercury.

Castax, M. R. and Queirel, J.: Pulmonary complications in late hereditary syphilis (La Prensa Medica, Argentina). Less rare than is usually supposed. Age of predilection fifteen to twenty years. Resembles tuberculosis closely which must be excluded by examination. Instances of pleurisy given in issues of following week.

Madena, C.: Syphilitic Oculo-motor-paralysis and chronic nephritis. (La Medicina Practica, September 30, 1919.) Report of case in man aged forty-six, traceable to unrecognized syphilis. Cured in forty days.

December 6, page 737—Mott, F. W.: Continuation of article referred to above. Testes of general paralytics show active spermatogenesis. Spirochetes found in brain but not in testes. Hence the fact that general paralytics have healthy children unless wives are infected. Testes of cases of dementia praecox show atrophy. Testes of case of imbecility and idiocy showed complete absence of spermatogenesis.

December 6, page 39—Abstract (230) Lignac, G. O. E.: Syphilis of the Stomach (Nederland Tjdschr V. Geneesk, November 8, 1919). Diagnosis of carcinoma made; on operation, syphilis found.

Abstract (231) Boas and Thompson: Early vaccine treatment of gonorrhea. (Hospitalstidende, October 22, 1919). Use vaccine treatment in early cases, and so prevent complications. Among inoculated patients incidence of complications 19 per cent; among uninoculated, 45 per cent.

Abstract (232) intravenous injection of mercury and salvarsan in same solution. Linser of Tübingen (Med. Klinik, October 12, 1919) has for the past fifteen months given intravenous injections of a mixture of sublimate of mercury and salvarsan in about 1,000 cases. About 8,000 injections—no ill-effects observed. Effect rapid and thorough. In only a couple of cases did Wassermann not remain negative after one year.

Lancet, December 20—Control of Venereal Diseases. Legislation against venereal diseases in Sweden since outbreak of war, two far-reaching measures passed, Marriage Act of 1915—forbids patients suffering with venereal diseases to marry unless the Crown's permission has been obtained. Penalty for deceit in this matter is imprisonment for at least one year or penal servitude for not more than four years.

Legislation of 1918 makes a person with venereal disease in infectious stage who exposes any one in sexual intercourse or indecent contact liable to imprisonment or fine. If infection follows, liable to

penal servitude for a maximum of two years. Any one who in any other way than the above exposes another is liable to like punishment. (Epitome of each paragraph in act concerning venereal diseases.)

Annales de Dermatologie et de Syphilographie, September, 1919—S. Nicolau (Bucarest): Inequality of the pupils among syphilitics in different stages. Examined seventy-five patients with chancre, 409 secondary and sixty-eight tertiary. Inequality present in twenty-two of the first stage, 153 of the second; and twenty-five of the third. He also examined 200 subjects apparently free from syphilis and found it in three to four out of a hundred. Concludes inequality found in all periods of syphilis. (It co-exists frequently with spinal lymphocytosis; evolution, however, not parallel. Precocious lymphocytosis usually disappears but inequality of pupils once developed constitutes often an indelible stigma. It should not be considered a menace, nevertheless it is a symptom to watch over, under control of cerebro-spinal fluid. Valuable sign of syphilis; may be of service in diagnosis of latent or doubtful syphilis.

Any communications with reference to the prevention and control of venereal disease, should be addressed to Iowa State Board of Health, Bureau of Venereal Disease Control, Room 11, State Capitol, Des Moines, Iowa.

BOOK REVIEWS

HISTORY OF THE ONE HUNDRED AND SEVENTEENTH SANITARY TRAIN

By Lieut.-Col. Wilbur S. Conkling, M.C., U. S. A.

If the Great World War was an epoch in the world's history, how much more was it an event in the life of the men who participated, especially men who served in active areas. The spirit of adventure filled the minds of the men with a knowledge of what war meant, who the enemy was and what the risk was. It was a solemn moment. The great adventure came to a successful issue but at a great loss of valuable lives; and now those who returned review the spirit of the day and hour when the sacrifice was made. Lieut.-Col. Conkling, who was one of those most actively engaged and who was the immediate commanding officer of the 117th Sanitary Train was written a book of 192 pages, "dedicated to the memory of the members of the Rainbow Sanitary Train who will not come home."

The book bears the unique title of "Iodine and Gasoline." The title will no doubt appeal to the members of the Rainbow Division in a way quite different from what it will to us who sat by the fire-side with the morning paper in our hands wondering where our men were and what the casualty list will reveal. The story begins with the summer and autumn of 1917 and carries us with the Forty-Second Infantry Division across the ocean, through Eng-

land, France and to the Rhine. It appears that the Division stopped at various interesting places. They stopped at Baccarat, at Champagne, at Chateau Thierry, at St. Mihiel, the Argonne, hurried on to Sedan and more leisurely to Bad Neurenahr and finally turned their faces home to the United States. The many experiences at these places are recited in a most interesting and dramatic manner. We are informed of the doings of many individuals. We passed over these places in 1913 and if we remember correctly and have read this book understandingly, our reception was quite different and our physical accommodations and transportation were better.

The men of the 117th Sanitary Train, their friends and the 42nd Division are under a debt of gratitude to Lieut.-Col. Conkling for the well written and interesting account of the doings of a body of soldiers which did honor to their country and whose memory will remain as long as the written page exists.

THE SYSTEMATIC DEVELOPMENT OF X-RAY PLATES AND FILMS

By Lehman Wendell, B.S., D.D.S., Chief of the Photographic Work; Instructor of Prosthetics and Orthodontia, College of Dentistry, University of Minnesota. Illustrated. C. V. Mosby Company, St. Louis, 1919. Price \$2.00.

The book before us is a manual of technic in the preparation of x-ray plates and films. It is made plain that the instruction imparted by the agent who sets up the machine is not sufficient, that in fact a knowledge of photography is necessary to obtain the best results. However expensive and however good the x-ray machine may be unless the plates are properly developed the work will be unsatisfactory. The author presents the fundamentals; the x-ray plate; basic principles of development and fixation.

The methods of development are pointed out; the tray method; the factorial method and the tank or stand development, and considers the merits of each. A short chapter on developing formulas is given with directions for washing and drying of negatives. A description of plate tanks for dentists is given, also a word on chemicals and suggestions on weights and measure.

The author of this book is a dentist but the book has an equal interest to physicians and surgeons who employ x-ray aids in diagnosis.

AMERICAN ILLUSTRATED MEDICAL DICTIONARY—(Dorland)

A New and Complete Dictionary of Terms Used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Veterinary Science, Nursing, Biology and Kindred Branches; with New and Elaborate Tables. Tenth Edition, Revised and Enlarged. Edited by W. A. Newman Dorland, M.D. Large Octavo of 1201 Pages, with 331 Illustrations, 119 in

Colors, Containing Over 2,000 New Terms. W. B. Saunders Company, 1919, Philadelphia and London. Price: Flexible Leather \$6.00 Net, Thumb Index \$6.50 Net.

There is at least one book that every medical practitioner should possess and that is a medical dictionary brought up to date; not only every medical practitioner, but men of science, who are interested in the departments of biology, chemistry, pharmacy, dentistry and veterinary medicine, including teachers in the higher grades. So many changes are taking place in the biological sciences that dictionaries of more than two years old may fail to furnish the desired information; hence the importance of frequent new editions. The enterprising book publishers of the house of Saunders Company, to whom the medical profession is under so many obligations, have issued a new Dorland about every two years, which has enabled medical practitioners and other scientific workers to obtain correct knowledge of the meaning of words used and their application. Our vocabulary is increasing and new terms are being introduced which increases our obligation in preparing medical papers and filling out communications. We have before us the tenth edition of this valuable work.

SURGICAL CLINICS OF CHICAGO

Volume 3, Number 6, (December, 1919) Octavo of 215 Pages, 63 Illustrations and Index to Volume 3. W. B. Saunders Company, Philadelphia and London; Published Bi-Monthly. Price Per Year, Paper \$10, and Cloth \$14.

In this number is found clinics by nineteen surgeons including a considerable variety of subjects. It is to be observed that a group of younger surgeons are appearing although the names of Ochsner and Bevan are found with their usual valuable contributions. Eisendrath and Carl Beck and Kellogg Speed are also on the list of contributors.

THE MEDICAL CLINICS OF NORTH AMERICA

Volume 3, Number 3, (The Mayo Clinic Number, November, 1919.) Octavo of 296 Pages, 79 Illustrations. W. B. Saunders Company, 1920, Published Bi-monthly. Price Per Clinic Year: Paper \$12, Cloth \$16.

This number is unique in that the papers are furnished by workers in a single clinic. It should be observed that clinics of North America take us from one clinic to another to all American centers of medicine and by following the numbers for a single year, we become familiar with the medical work of our widely expanded country.

The number before us contains clinical studies by twenty-three workers, including twenty-nine subjects. Space will not permit us to consider particular subjects, we would however draw special attention

to the number of particular, and obscure matters, which can only be found in very large clinics where the material is exceedingly abundant. These obscure forms of disease come to us as single cases or at most, few in numbers, but it is none the less important that we should have some conception of what we have to deal with and some reliable guide to turn to in deciding what course to pursue. This number will furnish us a wide field of study.

THE DISEASES OF INFANTS AND CHILDREN

By J. P. Crozier Griffith, M.D., Ph.D., Professor of Pediatrics in the University of Pennsylvania. Two Octavo Volumes Totaling 1542 Pages, with 436 Illustrations, Including 20 Plates in Colors. W. B. Saunders Company, 1919, Cloth \$16 Net.

This great work in two volumes presents an exhaustive discussion on diseases of infants and children by a writer high in authority in this department of medicine. The remarkable activity which has developed in what relates to the welfare of children has made a profound impression upon the medical profession and on the public generally. Never before has there been so acute an understanding of the dependence of nations on the welfare of the child, until the recent past the care of infants and children has been largely sentimental and the doctors function was to administer agreeable medicines and manifest due sympathy for the distressed parent. All this is important but thorough study of the child's condition and accurate diagnosis is of the first place. The departments of pediatrics in our medical universities are now occupying the highest place with the authorities and very properly so. There is some doubt if the general practitioner fully appreciates the importance of patient study of infant and children patients. It is to him that most of the little ones first come and to him the great responsibility.

Dr. Griffith has devoted three hundred pages to fundamental questions involved in methods of examination, therapeutics in infancy and childhood, treatment other than drugs by mouth, foods and diet, diseases of the new born, infections, accidents at birth and many other allied conditions.

Section 2 of Division 2, comes a consideration of acute infectious diseases. Section 3 includes general and nutritional diseases. Section 4, diseases of the digestive system. These two sections occupy nearly 300 pages of volume one and includes perhaps the most difficult as well as the most important chapters in infant and childhood practice.

Sections 5 and 6 relate to diseases of the respiratory and circulatory systems.

Section 7 relates to diseases of the genito-urinary system.

Section 8, to diseases of the nervous system.

Section 9 includes diseases of the muscles, bones and joints and Sections 10 and 11 take up diseases of the blood, spleen and lymphatic glands and diseases

of the ductless glands and internal secretions. Section 12, the special organs, skin, eye and ear.

This is not an encyclopedia of children's diseases but a systematic treatise on diseases of infants and children of a well balanced character with the presentation of views of many workers in this field of medicine. It is written with a full appreciation of the needs of the modern practitioner in this field of medicine, not alone for the specialist but for the family physician who assumes the responsibility of caring for the family welfare.

THE AFTER TREATMENT OF SURGICAL PATIENTS

By Willard Bartlett, A.M., M.D., F.A.C.S.,
and Collaborators, with 434 Original Illustrations. C. V. Mosby Company, St. Louis,
1920. Price \$10.

This important work is published in two attractive volumes.

The importance of the after-treatment of surgical patients is too well understood to need an extended argument, but just what this may imply will appeal to different surgeons in different ways depending somewhat on the degree of experience and the conception the surgeon may have of the operative requirement and what may follow the operation. There are comparatively few surgeons who are gifted with such accurate surgical judgment that they may do at the operating table exactly what should be done and leave the patient entirely to the restoration of nature's powers. This fact has lead Dr. Bartlett from his extensive knowledge and experience to present to the profession a plan for management of patients who need a certain amount of treatment after the operation, to bring about the most satisfactory results.

Dr. Bartlett, who is known as one of our most painstaking surgeons, has received important aid from his house surgeon, Dr. O. F. McKittrick in preparing many of the chapters on general subjects. To make the results of operative treatment as complete as possible several chapters are given to the arrangement of the operative room, anesthetics, etc. Then comes the earlier and later subjective manifestations which may suggest to the surgeon the progress of the patient, sleeplessness, hiccough, headache, backache, distressing conditions and the treatment which will render the patient more comfortable. The always interesting subjects: shock and hemorrhage. A chapter each is given to acute post-operative dilatation of the stomach, post-operative ileus and fat embolism. A chapter is given to the distressing accident of foreign bodies lost in the peritoneal cavity. Drug addiction and alcoholism in surgical patients are considered, also a chapter on post-operative psychosis, diabetes and acid intoxication and general septic infection are considered in relation to surgical operations. Numerous subjects under the head of after-treatment of surgical patients are presented which we must pass over and select only those of the greatest importance. Post-

operative pneumonia is of such import that it should be referred to in this connection. Important advice is given as to the prevention of this accident and as to treatment. Thromboplebitis, the dread of abdominal surgeons is discussed in considerable detail and in this connection pulmonary embolism and pylephlebitis, questions of nutrition and of the intestinal tract, occupy considerable space. Treatment of wound and bandaging find an important place in the work. The treatment of malignancy by x-ray and radium—the only hope for certain cases—is presented by Dr. Russell H. Boggs of Pittsburgh. Several other subjects are presented in this volume relating to postoperative treatment.

The second volume deals with the operative undertaking itself which may properly be preceded by considerations in volume one, touching conditions which will affect the course of the patient after the operation.

The second volume may be regarded as a work on operative surgery. The recognized artistic spirit of Dr. Bartlett is manifest in the technic described in the text and in the accompanying illustrations.

THE DON QUIXOTE OF PSYCHIATRY

By Victor Robinson. Published by New York Historico-Medical Press, 206 Broadway, 1919.

This is a biography of Dr. Shobal Vail Clevenger, Jr. It is not only a biography of Dr. S. V. Clevenger of Chicago, but a history of Chicago during the reign of Mike McDonald, from 1884 to 1893, covering a period of about ten years. Nowhere can we find a more graphic account of the conditions existing in the metropolis of the West during that time. From a medical point of view Dunning, the Insane Hospital of Chicago, was the center of medico-politics and Clevenger, the hero. Clevenger did not last long as special pathologist at Dunning but his appointment was an incident in a series of events which made this institution famous.

The history of Clevenger is interesting to the writer because he had the privilege of not only knowing Dr. Clevenger well as a medico-legal expert but also most of the men, whose names are connected with him covering a period of many years.

Dr. Clevenger was born in Italy, March 24, 1843, the son of a sculptor, who died at sea when Shobal was six months old. The widow married a second time to a man who showed some skill in wasting her property. After many and varied experiences, Clevenger matriculated in the Chicago Medical College and graduated March, 1879. He was for many years associated with different members of the faculty and to make the story interesting and complete, short biographical sketches are given of these gentlemen.

Through the influence of Professor J. S. Jewell, Clevenger became interested in nervous and mental diseases and early became a contributor to a new medical journal edited by Jewell known as the "Jour-

nal of Nervous and Mental Diseases." Through his interest in psychiatry Clevenger received the appointment of special pathologist to the Dunning Insane Hospital at the hands of Mike McDonald.

The writer on one occasion listened to Clevenger's experiences at Dunning while qualifying as an expert witness in a "spinal concussion" case. Later Clevenger had further experience as a reform superintendent of the Kankakee asylum. Then follows an account of important papers and books written on neurological subjects and on medical jurisprudence. Considerable space is given to his association with famous physicians and psychiatrists of New York and Philadelphia.

Dr. S. J. Clevenger was a remarkable man in many respects. He possessed great knowledge of the nervous system and of mental diseases and he was much in demand as an expert in nervous and mental diseases. He was deeply interested in reform movements in the administration of institutions for the insane in Illinois at a time when the worst possible conditions existed under boss control when Mike McDonald ruled Chicago. Clevenger was a trained and conscientious scientist, unfamiliar with political methods, believing that public institutions should be managed on principles of right and justice.

Clevenger struggled with experts in graft and was always defeated while in public life. It is true the grafters came to grief, but it was after Clevenger gave up the fight. No one could be less fitted for a reformer than Clevenger and it was the peculiar situation that lead the author of this interesting book, no doubt, to choose the title "Don Quixote of Psychiatry."

UNITED STATES NAVAL MEDICAL BULLETIN

Published for the Information of the Medical Department of the Service. Special Number. Issued by the Bureau of Medicine and Surgery Navy Department. Report on Medical and Surgical Developments of the War by William Seaman Bainbridge, Lieutenant Commander, Medical Corps, United States Naval Reserve Force. Government Printing Office, Washington, D. C.

This contribution to war surgery is of value in that it reviews the surgical experience of the navy department. While the report covers a field already well occupied by many writers it serves to standardize work which sometimes bears the stamp of prejudice. It is to the credit of a small number of responsible medical officers that they secured the opportunity to test out certain methods of procedure which were in controversy, particularly antiseptics. The Carrel Dakin and other methods of treatment were employed in series of cases under trained assistants and results recorded. The preparations used in the treatment of wounds by the various methods are described together with the method of using them. It was found that no one plan of treatment

was ideal but by the exercise of the best surgical judgment, surgeons at last were able to select the method best suited to the case.

Referring to German methods, their policy of secrecy rendered it difficult to place a definite value at the present time. The author is of the opinion that notwithstanding the German prewar efficiency, they fell short of the Allies in the efficiency of wound treatment.

The sections on joint injuries, fractures, trephining, amputations and plastic surgery contain much condensed information as to methods and apparatus. A short discussion on trench fever is presented. The remainder of the report is devoted to personal observations on visiting different hospitals, English and French chiefly. Lieutenant Commander Bainbridge is an acute observer and presents many interesting facts on the different phases of war surgery noted at the many points visited. As it appears to us, the most important observation should relate to evacuation of wounded men and the methods of anticipating and preventing disease. It is generally admitted that the principles of surgery have not changed in consequence of this war and the surgeon of the present and the future, as well as of the past, is the "good surgeon."

THE MEDICAL TREATMENT OF CANCER

By L. Duncan Bulkley, A.M., M.D. Senior Physician to the New York Skin and Cancer Hospital. F. A. Davis Company, Publishers, New York. Price \$2.75 Net.

This book is made up of numerous papers published by Dr. Bulkley, chiefly against surgery in the treatment of cancer. The book is interesting in view of the fact that nearly every other writer and investigator presents surgery as the only hope in the cure of this disease. Dr. Bulkley takes quite a different view and insists that the mortality from cancer has increased more than 20 per cent since surgery was offered as a means of cure. The discussion is chiefly a negative one. It is frequently stated what cancer is not, and admits that what cancer is and how caused is not known. It is believed that cancer is due in some way to errors in metabolism and possibly to disturbances in the glands of internal secretion. It is also associated with errors in elimination. The author states, as was shown by Roger William several years ago, that cancer is more frequently seen among people who indulge in luxuries; that is, among the richer nations, most advanced in civilization. People who use meat, tea and coffee and alcohol or who live the best according to present standards of living. On the other hand, people who live the poorest and are least advanced in civilization suffer much less from cancerous disease. Dr. Bulkley, of course, means that people who live on simple diet are least exposed to cancer. He does not mean that nations which desire to escape cancer should return to a lower order of civilization. Dr. Bulkley denies that cancer in any stage is a local disease, but is a constitutional disease

and quotes largely from an earlier school of surgeons, Sir James Paget, Willard Parker, Sir Astley Cooper and others of their time. He also quotes extensively from W. J. Mayo, whose views he does not seem to understand. Dr. Mayo does not hold that errors of diet or the use of meat or tea or coffee or alcohol in themselves in any way cause cancer, but errors in cooking highly seasoned food irritates the stomach; that hot tea or hot coffee also irritates the stomach. Dr. Mayo, himself, is a liberal meat eater, he also uses tea and coffee freely, but is careful to see that they are carefully cooled before putting them in his stomach. Dr. Mayo has frequently expressed himself on these subjects in our presence. Dr. Bulkley calls attention to the well known fact that cancer afflicts nations of the most advanced civilization and the most luxurious in habits of living, while the poorest and most backward suffer the least from the disease. Dr. Bulkley, in referring to intestinal stasis as outlined by Lane, and to constipation states, "I feel like saying that the toxins produced by the millions of micro-organisms generated through intestinal stasis and fecal putrefaction, are the real, incidental cause of cancer." Dr. Bulkley places himself squarely against the surgical treatment of cancer, in that he believes that the fundamental cause of cancer is an error in metabolism largely influenced by diet and that therefore, surgery can accomplish no good results and that the rational treatment is medical. The author cites many cases of cancer cured by medical treatment, on seeking for the method of treatment we find that alcohol, tea and coffee, meat and rich food should be avoided and that the drugs used should be for the purpose of elimination. He has no specific medical agent. Dr. Bulkley holds throughout his book that the causes of cancer are errors of metabolism and that the treatment is a proper diet which eliminates meat, alcohol, tea and coffee, and consists of simple food and medical agents are such as eliminate the toxins of micro-organisms production. In short cancer is a disease of civilization. It is an interesting book and well worth reading, although we shall not probably agree with him in his contention.

THE BLIND: THEIR CONDITION AND THE WORK BEING DONE FOR THEM IN THE UNITED STATES

By Harry Bist, Ph.D., Author of "The Deaf; Their Position in Society and the Provision for Their Education in the United States." Published by The Macmillan Company, 1916. Price, \$4.00.

This is not a treatise on diseases of the eye but an economic study of blindness. The general state of the blind is first considered and includes some statistics as geographical distribution, age, and cause. A chapter is given to the economic conditions of the blind; the employment open to the blind; their earning capacity and the conditions of support in differ-

ent sections of the United States. Three chapters are devoted to the cause of blindness in relation to prevention. A careful analysis is made of hospital reports as to the influence of heredity; The extent of trachoma and ophthalmia neonatorum and their prevention; the laws in different states regarding these diseases.

Chapter nine considers blindness and accidents with statistical reports from several states having large industrial interests with suggestions as to prevention. Is blindness increasing or decreasing? From an analysis of the Federal census, it is found that from 1830 to 1860 the percentage of the blind remained fairly stationary. From 1860 to 1880 there was a great increase. In 1890 there was a small decrease and a small increase in 1900. In 1910 a considerable decrease.

The trustworthiness of the census reports are commented upon. With a later chapter begins the discussion of organized movements for the prevention of blindness and the education of the blind, together with a history of the education of the blind in the United States, including attendance on schools and the legal regulations, material provisions and protection of the blind. Considerable space is given to industrial establishments for the blind; theoretical aspects; the establishments under public and under private auspices.

Pensions for the blind and theoretical considerations. Three chapters relate to indemnities paid for the loss of sight, through suits at law; through insurance policies and through workingmen's compensation laws. The book closes with a consideration of private associations for the blind, public commissions for the blind, provisions for persons blinded in war, with conclusions in respect to the work for the blind in the United States.

This book of seven hundred sixty-three pages is an interesting and valuable contribution to the economic relation to the blind. A great amount of literature and many statistical reports have been analyzed in the preparation of the work which will aid materially, workers in economic fields.

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MEDICAL NEWS NOTES

Dr. William Jepson of Sioux City on the morning of April 2 spoke on Professional Aspirations at the spring convocation at the University of Iowa, Iowa City, when forty-four students in the college of medicine received their degrees. Dr. Jepson formerly was a professor of surgery in the university's college of medicine.

The Dubuque County Medical Society has signed a contract with the county board of supervisors for the county medical work during the coming year. The contract calls for \$3,500 for the year's work and this will include all of the medical work of the county. Contagious cases will be cared for by the physicians with the exception of the social diseases, which will be taken care of by a separate clinic.

Eleanor Moore County Hospital may be the name of the county institution as a result of the informal action of the board of trustees for the hospital.

The number of small children poisoned by poisonous fly destroyers is appalling. Formerly blotting paper soaked with arsenic was much used for these fly destroyers. A little piece of this was put in an open saucer with some water and a little sugar. More recently shallow boxes of tin with a wick through the top have come into use, but on account of the habit

of children of putting everything to their lips these seem to be as dangerous as the open saucer of poisoned water.

Some cases of poisoning from the use of fly poisons are doubtless never reported, for it is difficult, perhaps impossible, for even an experienced physician to distinguish a case of arsenical poisoning from cholera infantum, the symptoms being so similar. How many children have been poisoned by these fly poisons and the deaths ascribed to cholera infantum can never be known. The cases reported are all children from slightly less than a year old to six or seven years old. In many cases these children are not old enough to tell what they have taken if questioned about their illness, and unless seen taking the poison the chances are that the cause of the child's illness will never be known and it will be thought the child had cholera infantum. The danger is especially great to children of the foreign born for as is well known, many of the foreigners are slow to call medical aid in case of children's ailments. In country districts, where it often takes several hours to get a physician, it is especially dangerous to use fly poisons.

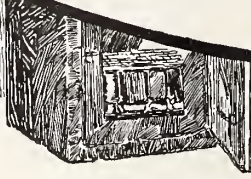
An announcement of the Bremerman Urological Hospital appears in the advertising section of this issue. This hospital is located in the old Marshall Field homestead near the Illinois Central depot, convenient of access and excellently adapted for its present purpose.


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The Journal of the Iowa State Medical Society

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DES MOINES, IOWA, JULY 15, 1920

No. 7

ADDRESS BY DR. VICTOR C. VAUGHAN*

Dean and Professor of Hygiene and Physiological Chemistry at
the University of Michigan, School of Medicine, Ann
Arbor, Michigan

Mr. Chairman and Gentlemen: I shall talk on certain data gained by study of the communicable diseases in the army. My small part in the army was to act as chief of the section on communicable diseases, and my purpose this morning is to gather from these studies some of the most important points and present them to you.

Before doing this, however, there are certain introductory remarks that I should like to make.

In early December, 1917, with General Gorgas, Colonel Welsh and others, I visited most of the camps in this country. It was quite evident that there was something wrong in the organization. The base hospital was not a part of the Division. The Division Surgeon had but little to do with the base hospital and the base hospital had but little to do with the Division Surgeon. Patients would be sent from the organizations to the base hospitals and the physicians sending them lost track of them entirely. At the same time, the officers at the base hospitals seldom went back to inquire as to the conditions under which the sick men lived before they were sent to the hospitals. It was decided, therefore, to put into each camp a man who should trace the communicable diseases and when we proposed to call the camp epidemiologist. I was authorized by General Gorgas to find an epidemiologist for each camp. I want to say that I had great difficulty in doing so. Few medical men know anything about epidemiology. They don't even know the elements of it: they don't even know the A. B. C.'s of epidemiology; for a very good reason they never studied it nor practiced it. It was rare indeed to find a medical man who could compute annual death rates, and I hope the medical men will take to heart my statement that the best epidemiologists that we found were non-medical men. Such men as Quiggle, Sodgewick, Phelps, Soper, know

epidemiology, and not one of them is a medical man.

In the second place, I want to say that the Division Surgeons, as a rule, knew just as little about epidemiology as the reserve officers, and, as a rule, a great deal less.

In one of the camps they were certainly in need of an epidemiologist. I found a man, who although possessing the M.D. degree, had really not practiced medicine but who had served as a health officer in one of the large cities. I sent him to this camp as epidemiologist. Failing to get any report from him for some weeks, I went to the camp. I went to the Division officer or Division surgeon and I said, "What have you done with the epidemiologist?" He said, "Oh, that man?"

"Yes, he is a pretty nice fellow, don't you think?"

"You bet he is!"

"Sure, I wouldn't have sent any other kind." And then I said, "Where is he?"

"I assigned him the duty of taking care of the officers' families in the city fourteen miles from the camp." That was the man who was to trace infectious diseases in the camp.

My next introductory remark will be along this line. Our method of mobilization was splendidly adopted to gathering together all the infectious diseases in the country. You could not have gone at it in a better way. Please note that I am not criticizing anybody. We pointed out early that gathering up millions of men from every city, town, village, cross-roads and farm in this country and bringing them into great camps, with every infectious disease in the country. It couldn't be otherwise. We recommend that the men in this country, for instance, be gotten together here in this county seat, be held under quarantine for fourteen days, be cleaned and put in uniform here, be inspected daily and sent to the nearest camp or the camp decided upon, not in troop trains but in ordinary trains, so as to avoid great collections of people.

What was done? The drafted men in the va-

*Given at the Annual Assembly of the Tri-State District Medical Society, Rockford, Illinois, September 1, 2, 3, 4, 1919.

rious states were collected at one or two places in the state. They were held there until a certain number accumulated, sometimes days, sometimes weeks, in their ordinary clothing that they had worn in their work at home, some of them clean, some of them moderately clean, some of them filthy, and then they were held at that place until a sufficient number was gathered to fill a train, and then a troop train carried them away to the camp.

In the Spring of 1918, (and I am giving you these facts simply as illustrative (some three or four thousand drafted negroes in Alabama were assembled at Montgomery. Some of them were held there for many days. They came from all parts of the State of Alabama. You can imagine how they were clothed. They wore the clothes that they had been working in on farms or in the cities. They were herded together at Montgomery, Alabama, and put on three troop trains and sent to Camp Custer, Michigan. It took about three days to get them there. When they reached Camp Custer, eighty cases of pneumonia were taken directly from the train to the base hospital, and during the next month those three or four thousand negroes not only furnished the largest proportion of cases of pneumonia to the hospital but the germ that they brought with them completely changed the character of the pneumonia, rendering it more deadly, prevailing throughout the whole camp.

I am mentioning these facts in order that you may understand the difficulties that the army medical officers had to contend with. To control the measles at Camp Wheeler, with every train bringing in from one to six cases of this disease already developed and every man on the train exposed to it before he got there, is a very different thing from controlling the measles in a comparatively stable population such as in the City of Rockford, for instance. It is very different!

Understand that I am not finding fault with anybody. When I went to an old line officer and talked about these things he recognized the danger, but he said, "My dear doctor, the purpose of this mobilization is not to make a demonstration in preventive medicine." True. "However desirable that may be, it is to fit men to be soldiers just as quickly as possible," he said. You couldn't question that, could you?

Every one knows that you can't make an army over night, that it takes time, and the hurried way in which we went into this war cost us hundreds, thousands of lives. There were many deaths due to preventable illness. That is one argument.

Let us point out some of the things that we have learned. In the first place, in regard to typhoid fever, vaccination for typhoid fever has greatly decreased this disease in the army. Vaccination does not give absolute protection. Because a man receives a certain number of typhoid, paratyphoid "A" and "B" germs is no proof that he is vaccinated. It isn't every man whose arm you scratch with typhoid vaccine who is vaccinated. It is only the man on whom it takes, as we say, who is vaccinated.

We speak of eberthian typhoid fever, of paratyphoid "A," of paratyphoid "B," and over and above those there are large numbers of cases which we designate clinically typhoid fever. We have no other name, so far as I know, for this last mentioned group. The French use an apparently unsatisfactory name. It is febrile gastric embarrassment. These cases of clinical typhoid fever which are not eberthian, not paratyphoid "A" or "B," differ clinically in only one constant particular from the other groups of typhoid fever. Rose spots have never been found in the febrile gastric fever. The blood has always been found to be sterile. No micro-organisms have ever been obtained.

Contrary to the generally stated opinion, typhoid fever in the vaccinated, the eberthian typhoid fever as well as paratyphoid "A" and paratyphoid "B," differs in no way, considering a large number of cases, clinically or in mortality from typhoid fever in the unvaccinated. There have been statements made that typhoid fever among the vaccinated, when it does occur, is a mild form with a lower death rate. There were nearly 1,000 cases of typhoid fever (I am giving this roughly) in the American Expeditionary Forces, the clinical study of which was entrusted to my son, the late Victor C. Vaughan, Jr. No one else has studied so large a group of typhoids among the vaccinated. His paper will be published soon, but I can say now that he shows quite conclusively, contrary to his own belief, as I happen to know, before he collected the data, that typhoid fever among the vaccinated differs in no way from typhoid fever among the unvaccinated. Of course, as I hinted a moment ago, you cannot tell whether the vaccination took in those people or not.

There is one other point I want to make here. That is with regard to the effect of vaccines, and this applies not only to typhoid vaccine but to other vaccines as well. The effect of vaccines is estimated in most laboratories by the agglutination test—absolutely worthless so far as showing the degree of infection. As Vidal pointed out,

agglutination is a phenomenon of infection and not of immunity. The man whose blood agglutinates with typhoid bacillus is not immune to typhoid fever but he has typhoid fever. Six months later, his blood may not agglutinate with typhoid bacillus and that man is not infected but he is immune to typhoid fever. It is absolutely wrong to estimate or to supposedly determine questions of immunity by agglutination reaction, and the same is true of complement fixation tests.

All the efforts made to control measles, to blot out measles in our camps, failed. Please do not misunderstand me. Local quarantine, isolation, and so forth, delayed the spread of measles and was, therefore, as I hope to point out in a moment, beneficial, but when measles got into a camp, it went through that camp until it reached every non-immune individual; then it burned itself out. Measles was much more common, quite naturally, among the rural troops than it was among urban troops. I do not need to explain that. For the same reason exactly, measles was much more common among Southern troops than among Northern troops. It is because the South is more rural than the North in the respect of population that is true.

In the study of communicable diseases in the army in the fall and winter of 1917-18, we had an opportunity never before presented and not likely to occur again, of studying the communicable diseases among men from different sections of the country. Camp Grant was filled with troops from certain states. Camp Wheeler was the same way and so were the other camps.

It was evident, in studying the communicable diseases at that time, that Southern troops were more widely infected and has a higher mortality than Northern troops. If you take a map of the United States, and take the camps in the places where they really were, you will find the best camps and the worst camps from a health point of view, in close proximity. For instance, the camp during the winter of 1917-18 that had the lowest death rate of any camp in the United States was Camp Logan, Houston, Texas. It was composed of the Illinois National Guard. It had a death rate lower, so far as I can ascertain, than ever prevailed in a group of men of that size assembled for that length of time, a death rate one-half of what it was in the same aged group of men who stayed at home in Chicago, a health record which I do not believe has ever been attained in the history of any other war.

Within a short distance of Houston, Texas, there was Camp Pike, Arkansas, one of the worst camps in the United States.

Now I take a map of the United States, and instead of putting the camps where they are, I put the camps in the center of the population from which the soldiers came. Instead of putting Camp Logan in Texas, I put it in Wisconsin, and so on. Instead of putting Camp Hancock in Georgia, I put it in Pennsylvania. Instead of putting Camp Wadsworth in South Carolina, I put it in New Jersey. Then we have all the good camps in one part of the United States with two exceptions. That area of the United States would be included by lines drawn down the Atlantic Coast from Maine to the middle of Maryland, carried directly west to the Mississippi River and then north to the western end of Lake Superior. Every camp that drew its soldiers from that region belonged to the best group of camps from a health standpoint, with two exceptions. Those exceptions were Camp Gordon in Georgia and Camp Lewis in Washington. It was intended that Camp Gordon should be a first-class camp and should be filled with the drafted men from Tennessee, Alabama and Georgia. However, those men were allowed to stay at Camp Gordon but a few weeks and were transferred to Camp Wheeler and Camp Gordon was filled with troops from twenty-six different states, mostly northern. At Camp Lewis, in Washington, the conditions are very similar to what they are in the section where the camps are located that are good.

Now this is a very important thing. Why should the soldiers, the drafted men, from this section of the country that I have mentioned suffer less when they assemble together than men from the South and the southwest and even from southern California. This has been a big problem. I have thought about it a great deal. My conclusion is rather an unpleasant one. It is an unsatisfactory one. Camp sanitation had nothing to do with it. There was no unsanitary camp in the United States. There was no camp in the United States that owed its illness to any appreciable extent to the lack of sanitation. Plenty of water supply, proper disposal of sewage and garbage, clean streets, abundance of sleeping quarters, good food, prevailed everywhere. There is no question of that. Conditions were so radically different from what they were in the Spanish-American War.

It seems to me that there is only one conclusion to reach, and that is that people who live in urban districts, in urban areas, in densely populated areas, have acquired a certain degree of increased resistance or immunity to the respiratory diseases which does not exist among those living in scattered rural communities.

That, I say, is a very unsatisfactory conclusion. If that conclusion be right, I hope somebody will get a better one. It is going to be a bigger job than we ever anticipated to get rid of the respiratory diseases. Stefansson, the Arctic explorer, who was in the Arctic region or along the Alaskan Coast at the time of the influenza epidemic, and who is a wonderfully intelligent man along medical lines for a layman, says that one-third of the Eskimos along the Alaskan Coast died within a few weeks from influenza. He put a question to me in this way: "Suppose that there is an island in the Pacific Ocean inhabited by any number of people, we will say 100,000. Suppose that neither they nor their ancestors have ever had measles, pneumonia, influenza. Suppose that I should say to you, 'Go to that island and take with you all the money you want and all the public health knowledge that you can collect and carry and all the sanitary engineering that you want. Take ten years and put the people of that island on the very best living conditions that can be conceived of, and when you are ready I will introduce influenza, pneumonia, measles, in a hundred different places in that island. You are not to quarantine. How many lives have you saved by your improvement in the sanitary conditions?'" Then he said, "Not one! Sanitation is going to carry you so far that you are going to have such diseases as typhoid fever and do a great deal of harm." Sanitation does much for other diseases, but it doesn't touch the respiratory diseases. In fact, the man at Camp Upton who came from the slums and the east side of New York City withstood the respiratory diseases better than the boys from Herkimor county.

Why is that? It means that there is only one answer and that is that they have lived in an atmosphere permeated by the exhalations of the lungs of all kinds of people for years and have acquired a certain amount of immunity.

We used to think that every disease has its specific cause. That is true in some instances. But if we study diseases clinically, or if we take a clinical classification of diseases, then in many instances we are wrong. I have already pointed out that we have clinical typhoid fever, eberthian bacillus, paratyphoid "A" and "B," and then a lot of different kinds of which we do not know the cause.

Before we went into this war, we were inclined to think that the pneumococcus was certainly the chief cause of pneumonia. If there is anything that these studies have demonstrated, it was the small part that Type 1 played, not only that, but all the types of pneumococcus, streptococcus

hemolyticus and the non-hemolyticus, and the staphylococcus, all caused pneumonia, or, as we should probably say now, the pneumonias. If we are going to classify them etiologically, we will have to say the pneumococcic pneumonias, the staphylococcic pneumonias, the streptococcic pneumonias and so on.

Any micro-organism which can grow and multiply in the lung may cause pneumonia. Whether the diagnostician will ever get to the point where he can tell which one of these germs causes the individual pneumonia that he has to deal with is another question.

As to influenza: The first camp that we have upon our list as visited by influenza was Camp Shelby at Hattiesburg, Mississippi. This is a rather unique study. Camp Shelby was occupied by the national drafted men from Kentucky, Indiana and West Virginia. These men were assembled in the Fall of 1917, and in April, 1918, it was struck by a well marked epidemic of influenza. There were 26,000 soldiers at Camp Shelby when this first epidemic of influenza struck the camp in April, 1918. There were about 2,000 sick enough to be put on the sick list and sent to the hospital or kept in quarters. From 24,000 to 26,000 men showed no evidence of having influenza at all. It was a mild epidemic. There were only six cases of pneumonia that occurred among the 2,000 that had influenza. We don't know whether it was due to the influenza that they had pneumonia or not. This was the only Division in the United States that remained at its original camp from the Fall of 1917 to the Fall of 1918, and in April, 1918, they had this epidemic of influenza. Recruits came in to the number of about 20,000. The fall epidemic came, and the men who had lived through the epidemic of the spring and had contracted influenza did not have it in the fall. Those who did not have it in the spring were just as immune to it as those who did have it. That is so plain that there can be no doubt about it.

Now what conclusion can you draw from this? There were other camps that had influenza in the spring, but the soldiers from those camps went to Europe and consequently there was less influenza in the American Expeditionary Forces than there was in the raw troops at home. There is one thing that stands out very plainly. It is on every page of our report nearly. It is this: To recruit a large army such as we did within so short a time is to increase its death rate far more than any battle in which we were really engaged. In other words, the number of recruit that came into our army increased our death rate more

markedly than any battle in which our troops fought. The raw soldier dies; the seasoned soldier lives. What is the difference between the raw soldiers and the seasoned soldier? At Camp Lee, for instance, men who had been in the service less than one month made up nine and a fraction per cent of the total strength and furnished over 30 per cent of the deaths, while about 45 per cent of the men there had been in the service six months or longer and furnished about 10 per cent of the deaths. At all the camps where the death rate was high, it was among recent recruits.

There is so much evidence regarding that that it simply irresistibly compels any one to admit its truth. There is one explanation for that so far as I can see, and that is this: In becoming a seasoned soldier, in other words in becoming accustomed to that life, one becomes immunized or, if you please, acquires increased resistance to the respiratory diseases. This is not altogether new. I had not thought of it in so long that I had almost forgotten it. When we made our typhoid report in 1898, we went into that work believing, as I think nearly everybody did believe at that time, that we would find the most typhoid fever among the weak and sickly, and certainly we thought we would find the highest death rate among that class. For that reason, we made a special study of the personal history of more than 6,000 men, some of them extending years back because they had been in the regular army, and we were simply overwhelmed with the fact that the men who acquired and died of typhoid fever were men who had never been on the sick report before and that men who had frequently been reported with diarrheas and gastric intestinal troubles did not have so large a per cent of typhoid fever. The mortality was highest among the most robust and the most vigorous and those who had the best health.

I thought then that we had made a discovery. Let me say to the younger men; when you think you have made a discovery don't go rummaging back through medical literature to find out if there is anything bearing on it, because if you do you are pretty sure to find that some one made the same observation possible a good many centuries ago.

When we found out that typhoid killed the strongest and most robust, I foolishly went to look back into the literature. What did I find? I found the records of typhus fever in Ireland which stated that the death rate among the poor people who had typhus fever one out of every twenty-three dies. Out of the doctors and the priests and the nurses who took care of these people, one out of every three died. Then it is a

historical fact that the English people were led to build hospitals for typhus fever and to improve their jail conditions largely because when a poor devil was brought out of a prison to be tried in a court room when typhus fever was prevalent all over Great Britain, within a few days the judge and the lawyers and the jurors were all dead of typhoid fever.

A man who wrote about the epidemic in Ireland said the disease went through the community just as you or I would go through a flock of sheep picking out the lustiest and the healthiest and the best.

That is the way influenza did, too. I was at Camp Devens during the prevalence of influenza there. It is the same in all camps. The strong and vigorous and robust men are the ones who die from it. The men who had just come from the farms and the woods of Maine and the mountains of New Hampshire, the Berkshire Hills and those regions, were the men who died, in the number of from seventy to ninety a day at Devens.

It may seem strange to you, but I have come to the conclusion, subject to revision, of course, (all my conclusions are subject to revision) that influenza is a disease which has been constantly with us ever since the epidemic of '89 and probably just as much before that. There have been recrudescences of influenza. Of course the valuable and reliable statistics do not go back to '89, but studying the statistics will show you the years when influenza has been a telling factor in the death rate. Influenza is always with us. Now and then it becomes an epidemic. What are the conditions under which that occurs? One of them is the assemblage of large numbers of susceptible people. Most of us have had the influenza. Most of us are immune. It is a disease much more common, in my opinion, than almost any other infectious disease unless it be measles.

How long one attack of influenza—it doesn't have to be an attack; one contact suffices—gives you immunity I cannot say. I am inclined to think it is not very long. At Camp Shelby it was certainly four months. It may be much longer than that, but when you get a large number of susceptible materials, meaning persons, together, then germs grow.

We had mild influenza in our camps; we had it in many of our cities in the Spring of 1918. The men who lived through the influenza epidemic, whether it was in camp or in city, escaped the influenza of a more virulent form in the fall.

Of all the large camps in the United States, Sherman had the highest death rate. Three and two-tenths per cent of the total strength of Camp

Sherman died within six weeks. I am not speaking of the number who had it, but that number died.

In the neighboring city of Columbus, Ohio, there was very little influenza relatively. The mortality was affected but slightly. In the Division which went from Camp Sherman across the seas, there was relatively little. Why? This is no isolated instance. I could mention a dozen like it, yet the mortality record of Columbus, Ohio, if taken the last year and run through, shows that they had influenza in the Spring of 1918, and doubled and trebled their death rate, but nobody paid any attention to it. It was not of so much importance at that time. Doubling the death rate from pneumonia seldom attracts attention, especially when it occurs in two or three sections with death rate running over two or three weeks. Therefore, they had relative immunity to the influenza of the fall.

We had mild influenza. When you get men together—susceptible men—and crowd them, then the virulence of the germ is going to increase. Why? Because it is directly transferred from one person to another. It is planted in that second person in large numbers, and when it is on readily utilizable material it grows abundantly.

The French Poilus, during 1918, did not have any great death rate from influenza. In August, 1918, the French Government called for an assembly of its class of 1920. One camp was brought together, and within three weeks 5 per cent of them were dead with influenza. They stopped mobilizing for a time their class of 1920 to resume it later.

It isn't the density of the population that causes the increase of virulence; it is the density of the susceptible material.

All of this will be worth but little if we cannot use it. If we should ever have to assemble another army or for any reason bring a large number of people together, especially young people, we should do at it in a different manner. I argued against troop trains. Wherever troops were sent en masse in troop trains on long tire-some journeys, pneumonia, measles, influenza, some infectious disease, broke out and became highly fatal. So far as I have been able to ascertain, the highest death rate in any civilized community from influenza and pneumonia was on an American man-of-war that lay in the harbor of Rio de Janeiro. It was filled entirely with recent recruits. It was an English ship or some foreign ship, (I am not sure that it was English) that brought in the infection and among the

eleven or twelve hundred men on this American man-of-war, about 5 per cent died.

Of course we get figures from all over the world apparently. Certain half civilized or partly civilized people who have lived remote from the rest of the world have died in larger numbers. We have pretty authentic reports from Guam. Between 4 and 5 per cent of the entire population of that island died within three weeks of influenza.

Troop trains should be avoided. When recruits are called in they should not be herded together but should be distributed among the ranks of seasoned soldiers.

This is one of the reasons why I am so greatly hopeful that some form of universal military service will be required in order that we may get accustomed and used to being together and consequently become immunized, that is, that our young people may, to the respiratory diseases. In addition to this there are certain physiological adaptations of the body to immunity.

SOME TYPICAL RECOVERIES IN IOWA FROM CHRONIC CONVULSIVE TOX- EMIA (EPILEPSY) FOLLOWING SURGICAL CORRECTION OF THE ABDOMINAL VIS- CERA

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Among my earlier discussions of the relationship between constipation and what was then called exclusively by the term "epilepsy" were some remarks before the Iowa State Medical Association. In those remarks I emphasized the following facts: First that, in these cases, there is a constant relationship between the convulsive phenomena and fecal retardation; second, that the fecal retardation depends upon anatomical disturbances, generally ptosis of some part of the gastrointestinal tract; and third, that, in an important number of cases, it is possible, by surgical correction of the anatomical conditions underlying and causing the constipation, to cure not only the constipation but the convulsions. The cases that are here presented in substantiation of that contention have been selected from a much larger list of recoveries, first because they illustrate in detail the etiology, pathology and symptomatology of the symptom complex; next, they were treated by surgical correction of the viscera;

next, they represent recoveries from both constipation and convulsions of sufficiently long standing to justify their recognition as "cures;" and, finally, they have been selected from a list of recoveries, national in extent, because they are Iowa cases, and, as their physicians are known to the profession of this state, are susceptible of verification. These cases furthermore represent rather broadly the various pathologic conditions which I have found present not only in them but in a very wide range of cases and they also typify the equally wide range of surgical procedure demanded for their relief.

Constipation—Grand Mal—Coloptosis—Redundant Sigmoid—Ileosigmoidostomy—Recovery from Seizures in Two Months—no Recurrence After Five Years.

The beneficent results of simple ileosigmoidostomy were rather unexpectedly demonstrated in the case of a young man then aged twenty-three, referred by Dr. E. A. Baldwin, of Riverton, Iowa, in 1914. The patient had a healthy boyhood; at fourteen was kicked in abdomen by both feet of a horse, causing profound shock with unconsciousness; since then he has been constipated; had pneumonia with empyema seven years ago; appendectomy in 1912, six months after first convulsive seizure; has had about fifteen grand mal and many petit mal seizures since then. Diagnosis: coloptosis with redundant sigmoid: Operation revealed not only the conditions described but extreme congestion of the veins with enlargement of the lymphatics. I did an ileosigmoidostomy the anastomosis being in the lower arch of the redundant sigmoid with intussusception valve in the upper arch. The patient returned home in the third week. There were some recurrences of the seizures during two months following the operation but there have been none since that time. The patient has resumed his work, that of an extensive agriculturist, and does everything that is necessary about his farm. In March, 1917, he had a partial intussusception of the ileum for which I did a resection with end-to-end anastomosis. I could trace no connection between this condition and the preceding operation. There has been no recurrence of the antecedent toxemic convulsions since February, 1915—practically five years, he has since married, and is now a well man.

Constipation—Major and Minor Seizures—Visceroptosis—Hepatopexy Combined with Parietal Implantation of Pylorus and Colon—Appendicostomy—Complete Recovery from Constipation and Seizures.

In certain of these cases there is marked decrease of the liver, sometimes to the extent of five inches, with resulting retardative traction on the portal vein and consequent mechanical congestion with perverted function of the liver. A very satisfactory method of treating this complication is shown in the instance of a young man from Shenandoah, Iowa, referred by the case in the practice of Dr. Baldwin, Riverton, Iowa, to which reference has just been made. The case came in September, 1916. Previous history negative up to twenty-third year when he began having "flashes of unconsciousness" several weeks apart. They became more frequent, finally daily, until they culminated in convulsive attacks. These were described as typical grand mal seizures. They were precipitated by any straining exertion, *e.g.*, putting on or pumping up a tire. With the patient recumbent the areas of gastric, cecal and colonic resonance were normal in location, but, upright, they at once dropped into the lower zone which showed a marked tendency to potbelliedness. This, in all cases, but especially in an otherwise muscular and slender person like the present patient, is pathognomonic of visceroptosis. These conditions were confirmed by x-ray examination which showed half of the barium in the stomach after eight hours. There was retardation at the terminal ileum and in the cecum with the transverse colon shown two inches below the lumbo-sacral articulation in the twenty-five hour plate. The last of the barium was dejected at seventy-eight hours. As this patient denied constipation, stating that he had a "regular" operation every day, the x-ray observation simply showed the case to have been one of "masked constipation"—an occasional occurrence in chronic convulsive toxemia. On opening the lower zone of the abdomen there was revealed more than the ordinary engorgement of the mesocolic veins but less of those of the mesentery. A band of adhesion was liberated four inches from the cecal end of the ileum, sharp edge dissection being required to liberate the bowel from this anchorage. The area thus denuded was covered by sliding and stitching some peritoneum over it to avoid readhesion. The upper zone was opened by my usual transverse-oblique incision. The margin of the liver was found two and a half inches below the costal margin. The stomach was dilated and its veins greatly engorged. The duodenum was covered with extensive exudate and bound down. The omentum was large, long, heavy, duplicated upon itself with adherent surfaces. The heavy portion of the omentum was excised about four inches from the colon. The

adhesions above described were broken up. A hepatopexy was done by excising the ligamentum teres low down, bringing it out through the transversalis fascia, the muscles and the superficial fascia of the upper flap of the operation wound, and fixing it there by suture. A parietal implantation of the pylorus and colon was then done, followed by an appendicostomy to bring the weakened colon under control. The patient made an uninterrupted recovery and has not since had a seizure. He returned two years later to have the appendicostomy closed. Careful examination, physical and by x-ray, showed all visceral positions to be normal. He has since remained well and is now a successful banker.

Constipation from Infancy—Grand Mal—Gastro-Coloptosis—Parietal Implantation—Cecostomy—Recovery—Freedom from Attacks after Five Years.

One of the most striking cases, because one of the most gratifying in its results, was that of a highly cultivated unmarried woman of twenty-five who was referred to me in April, 1916, by Dr. H. E. Moore, Des Moines, Iowa. She was normal until thirteen when "this trouble" began. She had an operation for appendicitis at fourteen; no evidence of disease in appendix after removal; has been constipated since childhood; heavy eater; frequent bilious attacks. Attacks come on at night, always preceded by constipation and indigestion. She consulted a prominent neurologist who said "the trouble is with the intestines but I don't know what it is" and made no effort to find out, but gave her bromides and a liquid diet. She grew worse under this regimen. The only relief she had was following removal of the healthy appendix with an appendicostomy. She had no seizure during the several weeks that this appendicostomy was left open and irrigations through it were systematically kept up. The constipation, however, has since become so obstinate that she takes one-third tumblerful of clear epsom salt duly dissolved, at a dose. Both the physical and x-ray examinations established marked gastrocoloptosis and operation was advised. The patient had a seizure during induction of anesthesia. On opening the lower zone in the median line, marked descensus of the colon was observable. The mesocolic veins were heavily engorged. The fixation of the previous appendicostomy was found to cause torsion of the cecum and was accordingly released and the opening into the cecum was closed. A more presenting part of the cecum was then utilized for a cecostomy. A parietal implantation of the pylorus and colon

was then done; the transverse-oblique incision made for this purpose revealing numerous adhesions about the hepatic flexure, the duodenum and the gall-bladder. The seizures ceased and have not since returned. On my advice and responsibility the patient is now happily married. Dr. Moore writes: "Her health is perfect and her happiness complete." A recent pleasant call from this former patient showed her in perfect health and happy in the later stages of a perfectly normal pregnancy.

Constipation—Grand and Petit Mal—Gastro-Coloptosis—Lane's Kink—Parietal Implantation with Appendectomy—and Release of Adhesions—Recovery—Freedom from Seizures.

A young unmarried woman of twenty-two was referred to me from Crawfordsville, Iowa, by another patient, the one next to be reported—stating that she had no attending physician. She came in September, 1917, giving an entirely negative history until about five years ago, when she had "a slight fainting spell." Preceding and since that time she had been constipated. The convulsive attacks began when she was at school, after playing tennis and doing other athletics. Attacks are typical *grand mal* with numerous intercurrent *petit mal* seizures. Physical examination gave all positive signs of gastrocoloptosis with descensus of the cecum. The x-ray examination shows a distinct shadow of the appendix and in the twenty-four hour plate, a dense accumulation in the terminal ileum and cecum. The same conditions persisted in the thirty-two hour plate. At operation, exploration of the lower zone revealed the cecum lying upon the floor of the pelvis. It was delivered through the median incision when it was shown to be so dilated, flabby and mobile that it could readily be carried over to within three-quarters of an inch of the crest of the left innominate bone. There was a band adhesion to the ileum, about four inches from the cecum, that bound the bowel down forming a typical "Lane's Kink." The mesocolic veins were much engorged and the lymphatics enlarged. The appendix, some seven inches long, containing foreign matter, was removed and the cecum was fixed to the parietal peritoneum. The upper zone was opened by transverse oblique incision. The gastrocolonic veins were black and greatly distended. There were adhesions between the posterior wall of the stomach and the mesocolon. There were extensive bands of adhesions enveloping the pyloric end of the duodenum; also between the arch of the duodenum and the gall-bladder. All adhesions were broken up after which a parietal im-

plantation of pylorus and colon was effected. There was prompt surgical recovery, a few attacks after the patient went home, but after the first two months there has been no recurrence.

Constipation—Seizures—Coloptosis with Complex Conditions—Cecopexy with Appendectomy—Recovery—Freedom from Attacks Since Operation.

This was the case of an unmarried man of twenty-eight, referred to me by Dr. W. H. McCaw, of Winfield, Iowa, in 1916. Previous history negative, except as to constipation which had existed since childhood and had latterly become very obstinate. The attacks, which began three years ago, were typical *grand mal*, with many intercurrent *petit mal* and were always associated with intensified constipation and often with vomiting of bile and ingesta followed by discharges of brown fecal matter and offensive gas. Physical examination was entirely negative except as to the abdomen which showed marked potbelliedness with decensus of both stomach and colon. This was confirmed by x-ray examination which also showed retardation in the terminal ileum, in the ascending colon, and in the transverse colon, with more than eighty hours in total transit. Diagnosis: Gastrocloptosis with possibly retardative adhesions. Operation: Exploration by oblique incision in the right lower quadrant. This revealed a band adhesion forming a typical "Lane's Kink;" incompetency of the ileo-cecal valve; dilatation and hypermobility of the cecum; adhesion of the hepatic flexure to the parietal peritoneum, pericolic exudate and atrophy of the muscularis of the colon. All visceral veins were markedly engorged. The conditions seemed to demand a colectomy but as chronic convulsive toxemics have low surgical resistance, and as this case was not in good condition, I simply broke up the adhesions, fixed the ptotic cecum and did an appendicostomy. It was explained that these steps were preliminary and intended to put the patient in better condition for the capital operation. His improvement, however, was marked from the first. But in spite of the fact that he had had no seizures he returned six months later for the secondary operation. Both physical and x-ray examination, however, revealed gastrointestinal positions much improved with no points of retardation and with intestinal transit complete in twenty-four hours. Secondary operation was accordingly advised against unless there should be recurrence of either the constipation or the convulsive symptoms. There has, however, been no recurrence up to the pres-

ent time, the patient being strong, healthy, and doing all sorts of even hazardous farm work. A recent letter from the patient states that he is well and another from Dr. McCaw confirms this report.

Constipation—Convulsions—Cecopexy—Appendicostomy—Recovery Persisting After Four Years.

An interesting case, that of a male, aet. 27, was sent to me in 1916, by Dr. G. S. Waterhouse, Mapleton, Iowa, and by Dr. J. M. Knott, Sioux City, Iowa. His family history was negative; constipated from childhood; first convulsion at sixteen; no warning; grand mal; typhoid a year ago. Physical examination practically negative except as to visceroptosis. This was confirmed by x-ray examination which demonstrated marked stasis in the terminal ileum with marked coloptosis. There was a profound and irreversible acidosis with some albumen and casts. Under these conditions it was felt that a preliminary operation to relieve the condition at the ileo-cecal juncture would be advisable. I accordingly opened the right lower quadrant; found the cecum on the floor of the pelvis; found and removed a six-inch appendix laden with enteroliths; broke up numerous adhesions; found extreme turgescence of all veins, with extreme enlargement of the mesocecal and mesenteric lymphatics; and concluded by fixing the appendix and doing an appendicostomy. This man made a prompt surgical recovery but improved staggeringly for some time before he was entirely relieved of either his constipation or convulsions. My latest advice is that he is now living in the West and following a successful business.

Constipation—Convulsion—Cecal Fixation with Appendicostomy—Delayed Improvement for Thirteen Months—Sustained Recovery Since 1917.

An interesting case of delay in realizing final results was that of a young man of twenty-five, referred to me in June, 1916, by the late Dr. J. M. Barstow of Council Bluffs, Iowa. It was interesting because it is one of but less than two per cent of all of my cases, in which so-called epilepsy occurred in any of the relationship, two of his father's half sisters having had the disease. His first convulsions came on while teething and were attributed to that cause. Has always been constipated; has had alternating attacks of polyuria and anuria, once going three days without passing urine. It was after an attack of this kind in 1904 that he had the first of his grand

mal seizures. They soon developed until he had from one to five seizures every seventh or eighth day. They were often followed by mental confusion lasting for a more or less indefinite period. Has had to take laxatives daily and in increasing quantities during the last two years. Examination, confirmed by x-ray study, demonstrated marked ptosis of the cecum with fecal stasis in the terminal ileum. Surgical exploration showed that the cecum was on the floor of the pelvis. This downward displacement so angulated the ileo-cecal juncture as to cause the retardation. Aside from the secondary pathology, engorged veins and enlarged lymphatics—this was the only marked change that seemed to require attention. A cecal fixation with appendicostomy was done. The patient made an uneventful surgical recovery, was promptly but gradually relieved of his constipation, but did not progress satisfactorily as to his convulsion. "We were just about ready to give up all hope," he writes, "when in July, 1917, suddenly and for no apparent cause, the seizures ceased and I have enjoyed almost perfect health since then."

It is but fair to state that the cases from Iowa so far operated upon by me, number twenty-eight. Of these two died following operation, one from shock and the other from pneumonia. Of the remainder I have been unable to get late returns from three and although they were then (two years ago) reported well, I have not included them in this report for lack of verification. Eight others are apparently well, but their recovery is of too short duration to justify classification as cures. I know of no case in which there has not been improvement. That this improvement will result in cure as the cases now stand, or whether further operation will be required, remains to be determined. They will be made the subject of a later report. That ultimate recovery may, however, be realized after a prolonged and discouraging delay is shown by a number of cases in my experience. Thus in Dr. Barstow's case, reported above, there was no cessation for thirteen months. In a case referred to me in 1917, by Dr. Lincoln Phillips of Cincinnati, that of a young girl of thirteen, there was no improvement for fifteen months since when there has been no recurrence whatever. As will be seen from these cases, it is difficult even yet, after five years of experience, to define definite criteria upon which to base a prognosis. Successes and disappointments are realized from conditions that are as nearly parallel as two cases are ever parallel. Occasionally the most hopeless give the most surprisingly good results. Thus in the case of a young man of seventeen, sent me in 1915, by Dr. C. R. Mc-

Connell of Williamsport, Ohio, there had been a record kept of 1307 seizures in eleven months, yet a letter just at hand from Dr. McConnell says that the patient "has had no convulsions for more than four years, mental conditions normal, and is a strong and healthy young man. I should pronounce him cured." This record was even exceeded in a case from the practice of Dr. H. N. Moyer, Chicago, that of a lad who had had 473 seizures in two months. I did a colonectomy in this case in 1916. After some months he cleared up and is now well. Another case, apparently equally hopeless, was that of a little child of three years, sent to me by Dr. S. O. Eads, Decatur, Illinois, in April, 1917. There had been obstinate constipation from infancy, and convulsions from the beginning of his second year. During the last few months they had grown so frequent that they were no longer counted, comprising almost a *status epilepticus*. The child had three major and several minor attacks in the course of a half hour's interview with me. I did a physiologic colonectomy with the final result that, just as I am closing this article, a letter from Dr. Eads states: "I am glad to report that his recovery seems complete." In the light of this experience there is rational ground for expecting other complete recoveries from among those yet classifiable only as "improved." We thus have a reasonably well demonstrated record of eight actual and eleven probable "cures," or a total of nineteen out of twenty-six primary surgical recoveries. To this may be added an indeterminate per cent of potential cures based on the Iowa list alone. It should be stated, in conclusion, that my general statistics, year by year, are in the course of preparation. The work of compiling them is made difficult by delay in securing final information from many cases. They will be published annually, each list being five years old, thus giving ample time to determine final results.

5 West Eighth Street.

A SHORTER WORKING DAY

In England there has been considerable discussion on establishing a six hour working day. There are of course certain very important questions relating to industrial necessities which can be solved by the industries only and are not subjects for discussion by medical men except in so far as may relate to the health and welfare of the workingman. On a discussion of this subject before the British Association it appeared that an eight hour day would be a proper limit. Dr. Vernon, who has made an exhaustive study of the subject, holds that for "certain dexterous processes" six hours is a sufficiently long day, "but that in regard to the majority of automatic processes" eight hour days will serve better.

THE CLINICAL SIGNIFICANCE OF THE BACTERIOLOGICAL EXAMINATION OF THE ACCESSORY NASAL SINUSES AND EARS*

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In constitutional diseases of vague or unknown origin it is necessary to look over the entire body seeking a possible focus of infection which may be responsible for the condition. I wish in the first part of this paper to present a small series of cases which were studied with the idea of ruling out the accessory nasal sinuses as the seat of the infection.

Under normal conditions the accessory nasal sinuses are sterile. Torne, in a series of twenty-eight autopsies on bodies dead not more than two hours, found all of the accessory nasal sinuses sterile. It is not to be assumed that bacteria do not enter the sinuses during life for it is well understood that air enters and leaves them with every inspiration and expiration and bacteria must also be carried in. But as soon as a micro-organism is lodged on the mucosa the cilia of the healthy sinus immediately begins its expulsion. This action of the cilia was demonstrated by Torne who opened the heads of freshly slaughtered calves so as to expose the nasal wall of the maxillary sinus and scattered lamp black over the mucous membrane. By using a strong reading glass he could watch the particles being moved along toward the ostium at a rate of one centimeter per minute. This was undoubtedly due to the motion of the cilia which were stimulated to action by the presence of the foreign material. This same investigator has also shown that the secretions of the mucous glands is decidedly antiseptic in its action.

About a year ago we began the examination of a series of cases with the purpose of ascertaining the bacterial contents of the sinuses of children, both in health and disease. We became interested in this investigation through observing the phenomenal improvement made by several arthritis cases after the elimination of the foci of infection in the accessory nasal sinuses. The first of these cases was of peculiar interest and I will briefly review it. However, it is typical of the others and the boy's improvement was no more marked than that observed in the majority of our cases. When the case was referred from the Orthopedic Department to the Department of Oto-laryngol-

ogy a letter was sent to Dr. Dean, the head of our department, saying that unless he was able to do something for this child it would become a hopeless cripple. He had a brother three years older than himself who was also in the Orthopedic Department for treatment. Three years ago the elder brother had suddenly become ill with painful and swollen joints. At the time that the letter was written he was hopelessly crippled. Practically every joint in his body was ankylosed. He lay in his bed motionless and helpless. A short time after the beginning of the brother's illness the younger lad suddenly developed painful and swollen joints, accompanied by a slightly increased temperature. The condition progressed in spite of the fact that his tonsils had been thoroughly removed and that the possibility of foci of infection about the teeth had been eliminated until at that time his ankles, knees, hips, wrists and hands were stiff, painful when forcibly moved and tender to the touch. He had a slightly increased temperature reaching from 100 to 101 each afternoon. A thorough examination of his sinuses was made and pus was found in several of them. The sinuses were drained and treated and the boy's improvement has been constant and very decided. From a condition in which he was unable to move himself or help himself in any way he is now able to be about on crutches, has gained decidedly in weight, has a good appetite, rosy complexion and is free from pain.

One hundred children who came to us for the removal of tonsils and adenoids have been studied and with these twelve children who were referred from the Orthopedic Department because of arthritis, nine who came for repair of posterior clefts and eight who had ear infections.

Since the antra are more uniformly developed in children than any of the other sinuses excepting the ethmoidal cells and since they are very easily examined and we believe most frequently infected, we confined our efforts in many cases to the examination of the antra alone. In cases of posterior clefts, ear infections, arthritis and other constitutional diseases an effort was also made to study the flora of the upper portion of the middle meatus, near the infundibulum and about the openings of the posterior ethmoidal and the sphenoidal sinuses.

In examining the antra a trochar was inserted through the antro-meatal wall and through this a long blunt-pointed needle attached to a glass syringe was inserted. One to three cc. of sterile normal salt solution was thrown into the antrum and drawn out. The solution was forced in and out of the antrum several times so as to loosen up

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any pus which might be clinging to the sinus wall. The presence of pus or mucus was noted and cultures were made from the washings.

An effort was made to rule out the possibility of contaminating the antra as much as possible by cleansing the mucous membrane of the nose and middle meatus with pledgets of sterile cotton and washing with 50 per cent alcohol, before passing the trochar through the walls. In a number of cases the middle meatus was painted with a solution of methylene blue with the idea of ascertaining whether or not the salt solution might flow out through the ostium with positive pressure and be drawn back in again with negative pressure, thereby contaminating the washings. In no case was there the slightest tint of blue obtained in the washings.

In cases where there was any question as to whether or not the upper and posterior sinuses were the foci of an infection which was causing the trouble an effort was made to study the flora of the infundibulum and the mucosa surrounding the opening of the sphenoids and posterior ethmoids. In young children this frequently cannot be done without the aid of an anaesthetic. We used a very slender eustachian catheter to which was attached a large rubber bulb. The open end of the catheter was placed at the point we wished to study and by means of suction secretions were collected in the catheter and immediately transferred to the proper culture medium. By this means we were able to collect pus draining from the upper and posterior sinuses although, of course, the possibility of contamination from the lower air passages could not be ruled out. However, in examining the nasal passages of 160 nurses in a search of diphtheria carriers a streptococcus pyogenes was found in only three instances. This point is especially significant when taken in connection with the findings of streptococci in the following series of cases.

In forty-five cases without any systemic or local lesions other than chronic tonsillitis and adenoids with negative x-ray findings and without any pus or mucus present in the washings 70 per cent were sterile, and the other 30 per cent contained only such bacteria as were present in the secretions of the nose. In no case was a hemolytic streptococcus found. In fifteen cases exactly similar to the above forty-five with the exception that the x-ray showed the antra blurred, 80 per cent were sterile; while the other 20 per cent contained no virulent organism. In three cases the only indication of sinus trouble found was pus and mucus in the antrum. Of these three, cultures from one was sterile and the other

cultures contained only such organisms as are normally found in the nose. It is probable that the secretions had been in the antrum since a recent coryza and were doing little or no harm. In twelve chronic arthritis cases the sinuses were found to be sterile in two, or 16 per cent. In one case the hemolytic streptococcus was the only organism found. In eight cases the hemolytic streptococcus was found together with other organisms, making nine cases or 75 per cent of the total number in which the hemolytic streptococcus was present. In the last of the twelve cases several organisms were found, none of which proved to be virulent.

Streptococci have been divided into three large groups, according to their action on hemoglobin. The hemolytic streptococci are members of that group which have the power to destroy hemoglobin. The streptococcus viridens or green producing streptococci are those which change the hemoglobin into meth-hemoglobin, and the third group are those which are without action on hemoglobin. A large number of the virulent streptococci belong to the hemolytic group. According to their ability to ferment certain sugars: lactose, salicin, mannite and inulin—the large hemolytic group is broken up into eight smaller groups. That group which ferments salicin and lactose but has no action on mannite and inulin is called the streptococcus pyogenes. It is such a streptococcus as is found in the majority of cases of blood poisoning, erysipelas, puerperal sepsis and many pyogenic conditions. Without exception the streptococci which were found in the sinuses of arthritis cases fermented lactose and salicin and were without action on mannite and inulin. These streptococci were injected intravenously into rabbits in doses of three to four cc. of twenty-four or forty-eight hour cultures. In several instances the rabbits died in periods varying from one to four days. In such cases there were swelling and degeneration of the spleen, kidneys and liver with or without an accompanying pneumonia. In four cases where smaller doses were used the rabbits lived for a period of several weeks. Four of these animals developed arthritis. From the joints of three hemolytic streptococci which fermented lactose and salicin were cultivated. From the fourth one I was unsuccessful in the attempt to cultivate streptococci from the joint fluid but microscopic sections demonstrated streptococci in the tissue. It is unfortunate that some of the animals died early. In any farther work which we do we will inoculate two animals, one with a large dose and one with a small dose in order to produce if pos-

sible the chronic condition rather than the acute. The streptococci so rapidly lose their virulence when cultivated on artificial media that it is impossible to retrace one's steps using a smaller dose after the animal has died.

We have found diseased sinuses in children under one year of age and in several of these cases we have found the pyogenic streptococcus. We have made a routine examination of the sinuses of children in need of posterior cleft closures. It is useless to close a posterior cleft as long as the nasal sinuses are acting as a foci of infection because the wound will become infected and the ligatures will not hold.

In several cases of acute Highmorian empyema we have found the hemolytic streptococcus and we have also found it to be the causative factor in a large number of our mastoiditis cases. We have devised a very simple appliance which we use in making cultures from the ears of our otitis media cases. It is simply a sterile medicine dropper, the point of which has been drawn out to a very fine capillary tube. The external auditory canal is cleansed and if the drum has already ruptured the pipette is inserted through the rupture and the discharge collected, but if the drum is not ruptured the material is cultured at the time the paracentesis is done. If the material is to be removed from the room where the patient is before being transferred to the culture media the end of the tube is sealed by passing it through a flame. It is not necessary to make cultures for several hours, although it is much better to do so immediately. In 90 per cent of our acute cases which required immediate operation we found the pyogenic streptococcus to be the causative factor. In a few instances we have found the encapsulated streptococcus and all of these cases were very serious, a large amount of bone destruction being found at the time of the operation. It would seem that unless the clinical findings were such as to directly contra-indicate operative procedure the findings of the encapsulated streptococcus is of itself sufficient ground for operative interference. This conclusion is not based on the observation of our own cases for they have been too few in number but it seems to be the consensus of opinion of clinicians in general. Our cases, however, demonstrated conclusively that if there is clinical evidence of an active process and the hemolytic streptococcus is found in the discharge of the middle ear a mastoid operation should be done at once. If the organism found is a diphtheroid bacillus, pneumococcus, colon bacillus, staphylococcus aureus or pyogenes it may be safe to wait, but an infection with a hem-

olytic streptococcus is a much more serious matter. In a large number of chronic discharging ears we have found the diphtheroid bacillus which morphologically is identical with the virulent diphtheria organism. Animal tests have proven this organism to be non-virulent. These findings agree with those published by other observers. Graham-Smith in his work on diphtheria collects the reports of a number of investigators. Six hundred and forty-five discharging ears were examined. One hundred and ninety-five or 30 per cent had diphtheria-like bacilli. Sixty-one of these were tested by animal inoculations. Control animals were protected by diphtheria antitoxin. Six proved to be true diphtheria. Eleven were pathogenic but the control animals also died, and forty-five of the sixty-one were non-pathogenic.

This research was done in the laboratory of the Department of Ophthalmology, Oto-laryngology and Oral Surgery. It is dependent upon the work done by Dr. Dean and his staff and was made possible by his assistance and suggestions. I wish also to acknowledge our indebtedness to the Graduate College for financial aid from their research fund.

Discussion

Dr. James Reeder, Sioux City—I would like to say a few words relative to the acute infections which the Doctor brought out. What I have in mind is the large number of acute mastoiditis cases in our cantonments during the winter of 1917-1918. If any of you gentlemen were in the service during the year 1917 you have had the experience. I had charge of the operative service at Camp Cody for over a period of three months. We operated from one to five mastoids a day and they all proved to be hemolytic streptococcus infection. So soon as the cortex was removed a culture was taken and sent to the laboratory and they all proved to be streptococcus while our mortality was 10 per cent, which I am sorry to say. These patients would come in within a few hours after the beginning of pain in the middle ear. A timely paracentesis would be performed, at the end of the third or fourth day it would be necessary to operate upon the mastoid, the patient would get along very nicely from a week to ten days and then would develop a sinus thrombosis, a metastatic arthritis or possibly an acute endocarditis, and those that died did so in a very few days from a general sepsis, and those that did get well seemed to take a long time for them to convalesce. I wish to emphasize early operative interference and also emphasize the importance of cultures from any acute infection of the middle ear. As this will often determine proper and timely surgical interference as well as proper post-operative care.

Dr. Ralph Parker, Des Moines—I would like to ask the Doctor what length of time is necessary to

arrive at a conclusion as to the bacteria involved, after making the culture.

Dr. E. R. Lewis, Dubuque—I am sorry I did not hear all of that paper. I think it has been more emphasized during the experience of the past two years than it ever has been before how extremely valuable the laboratory can be in the matter of indicating when and when not to operate early in upper respiratory infections. Dr. Reeder mentioned the fact that their mortality in simple mastoids had been 10 per cent. That, I think, is not at all bad. The epidemic of 1917-1918, some of which went over into 1918-1919, was one of an entirely different character from what one is accustomed to meet in simple mastoid cases. The ravages of those particular strains of streptococcus found in our camps are notorious, and I think that the Doctor's statistics will be found to be rather favorable in comparison with those throughout the country. One thing was emphasized by the experience in that epidemic that perhaps does not always obtain; there seems to be a danger point in the matter of the extensiveness of the simple mastoid operation. It is well known that there is a great deal less efficiency than usual on the part of the cellular tissues in the presence of these particular types of organisms, as far as protective circuminflammatory exudate organization goes. It is also unquestionably true that a certain amount of the systemic extensions of this type of streptococcus infection must be attributed to over-zealous extension of the original operative procedure. It is far safer to establish free drainage from the bulk of the cells involved, and possibly overlook at the time of the operation one or two of the far-outlying cells, than to go to the extent of an absolutely thorough and complete opening up of all the far-outlying cells. That gives the infection which is already present in those outlying cells, an opportunity to get into the circulation via the veins and lymphways. We are compelled to rely upon quiet and moderate drainage and the innate resistance of the tissues in this type of mastoid infection to a greater extent than ever before.

Dr. G. F. Harkness, Davenport—I think we all of us owe the university a debt of gratitude, and I simply want to say that we don't do all the things in the laboratory that we should. No practical suggestions made should strike home, and I want to thank the Doctor for them. They make much easier the co-operating with the laboratory in saving time, and that is what we are looking for. I think that is a very practical technique that is adaptable to private work.

Dr. Armstrong—I would like to answer the question about the time that it takes to make the diagnosis. If we get the culture any time in the day from eight o'clock in the morning until after eight o'clock at night, we usually give the report the next morning as to whether or not it is streptococcus hemolyticus. We transfer part of the exudate obtained from the middle ear to bouillon culture tube and part to the blood-agar plates. If the amount of material ob-

tained is very small there may not be sufficient growth until the second day.

CHRONIC SINUS INFECTION*

OTIS WOLFE, M.D., Marshalltown

On account of the breadth of the subject, I will confine my remarks chiefly to its chronic aspect and wish to dwell, first, on a few general considerations that have distinct importance.

In the first place the nasal sinuses have a lining of mucus membrane composed of ciliated epithelium with the motion wave always directed toward the ostium. The secretion of the glands situated in the mucosa has a decided inhibitory action to bacteria. It has been demonstrated that the air change in the sinuses during respiration is in direct ratio to that in the nares, depending on the degree of inspiration, as for instance, in forced inspiration it is equal to that of the nasal passages. The latter is of distinct importance in explaining the vacuum type of sinusitis. These natural conditions, therefore, tend to prevent chronic infection if they are not interfered with. While an acute infection may occur from infective organisms, as influenza, diplococcus pneumonia, etc., entering the sinus, or in conjunction with infective fevers, still they do not become chronic unless the normal drainage and emptying of the sinus, and its inhibitory action, is disturbed. This disturbance would occur by anatomical or mechanical blocking of drainage, or the lowered vitality of the mucus membrane. In considering the latter it may be caused by some coexisting disease, or it may be a cycle created by an infection, whereby the constant absorption of the toxins, with or without other focal infections, causes the lowered vitality of the mucus membrane and tends to cause a chronic condition. The particular infective organism does not seem to be as important as its virulence, the resisting power of the mucosa, and mixed infections.

Direct infections of sinuses by tuberculosis are not common—osteomyelitis, syphilis, and malignant neoplasms rare. They are usually secondary and due to necrosis of the bony walls. Infection through the blood and lymph channels may occur, but is not easily proven. The maxillary sinus is often affected by pus draining down into the hiatus semilunaris from the frontal sinus, and from there entering the maxillary ostium. This is especially true if the anterior end of the middle turbinate on that side is close to the lateral wall,

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either from an enlargement of its own, prominence of the anterior ethmoids, or crowding due to a deflected septum. These conditions make a more or less direct channel to the maxillary ostium and tend to cause the flow of pus directly to it.

Pressure, being one of the chief factors in the causation of symptoms, may either be caused from retained pus within the sinuses, or may be from mucus alone. With the glands continuing to secrete, and with no outlet, the pressure gradually becomes greater until considerable deformity may occur. This is especially noticeable around the orbit from the frontal and ethmoid labyrinth retention, mucus retention often becoming infected. Occlusion may be caused by traumatism to the walls of the sinus, followed by a low grade of periostitis. There may be a cyst formation in the sinus mucosa. A closed empyema may occur in which the causative organism has lost its virulence, and the purulent secretion has become mucoid. We may have a latent empyema.

An infective process being present within a sinus, without appreciable symptoms, may flare up and become virulent, or lie dormant and be the underlying cause of a chronic catarrh constituting a latent empyema. There may be an extension of inflammation from a neighboring part, causing sufficient swelling around the ostium to close it, or it may be a purely mechanical or anatomical obstruction of the ostium, due to hypertrophied mucus membrane, deviated septum, large sinuses, or enlarged turbinates.

Symptoms—In analyzing a considerable number of headaches, I have found about 54 per cent due to eye strain, and 39 per cent due to nasal sinusitis or pressure. This is perhaps a larger proportion than would be seen by a general practitioner. I have heard it said that 80 per cent of all headaches can be traced to eye strain, but I think this is placing it entirely too high, and not giving nasal conditions the consideration due them. Headache, varying from a sharp twinging neuralgic ache, to a constant pressure which can scarcely be borne, is seen, or may be entirely absent, depending on pressure. It is always worse when stooping over, especially in the morning when first arising, and is usually accompanied by some degree of dizziness.

Headaches from sinusitis may be of any type. It is surprising to note how many "sick headaches," "stomach headaches," neuralgias, and in fact, all types of headaches, can, by careful examination, be traced to the nose and given relief. It has been quite conclusively proven that pres-

sure on the nasal septum is one of the chief causes of the pressure type of headache. The neuralgic type is probably due to direct irritation of the nerves. It may also be due to the reabsorption of toxins. Negative pressure in the sinus explains the vacuum type. Tenderness over the sinuses may be present in severe cases, especially in frontal sinus involvement, but it is an unreliable symptom in the chronic type.

Purulent Secretion—Reappearing purulent secretion in some part of the nose shortly after having been removed, is evidence that a reservoir of purulent material underlies it. The continual reappearance of the pus beneath the anterior one-third of the middle turbinate indicates anterior sinus disease, and appearance in the olfactory fissure, and beneath the posterior end, indicates posterior disease. Frequently no pus is revealed on examination, and therefore it is not a reliable symptom of chronic sinusitis. Shrinking the nose and applying suction may reveal it. The maxillary and sphenoid sinus tend to empty themselves periodically when the patient is reclining. The frontals do just the opposite, and tend to empty themselves in the upright position, which accounts for the relief that a patient with frontal sinusitis obtains a couple of hours after getting up. As a rule, little or no secretion comes through the anterior nares, but most of it flows posteriorly and is either swallowed or hawked up. The consistency of the secretion is either exaggerated or retarded by changes in the weather, attacks of coryza, etc. Loss of smell is a frequent result of chronic sinusitis, and an offensive odor is due to saprophytic bacteria.

Nasal Polyps—Are a reliable symptom, and occur around the ostium of the sinus. They are usually associated with diseased ethmoids. Eczema of the nasal vestibule and erysipelas are sometimes found with chronic sinus infection.

Changes in the nasal mucosa in chronic sinusitis are an important symptom, and may either be atrophic or hypertrophic in type. The middle turbinate mucosa is prone to hypertrophies and the inferior to atrophies.

The mucosa of the upper respiratory tract frequently becomes hyperplastic, later giving rise to dry pharynx, and is usually associated with posterior ethmoid or sphenoid involvement. The constant bathing of the larynx with the purulent secretion frequently causes hyperemia and œdema, which in turn causes some degree of hoarseness due to interference with the vocal cords. This symptom may be the only one complained of by the patient. A chronic purulent sinus infection would be hard to associate with

it, if the symptoms of the sinusitis are not marked. It may be equally to blame with diseased tonsils.

Ear Symptoms—Are frequently found, tinnitus being common, tubal catarrh being only an extension of the inflammation. Bronchial symptoms such as asthma, bronchitis, etc., may be a further extension of the condition.

Nervous and intellectual disturbances are an indication that has been frequently overlooked, and deserves more attention than has been accorded it. The patient may complain of lapses of memory, mental torpor, with impaired ability to concentrate on business matters, a feeling of bodily weakness and a disinclination to mental work. There may be a marked inhibition of the sexual function, and as the disease wears on, neuresthenia prevails. The temper becomes easily aroused, the patient complains of all sorts of nervous symptoms, and is apt to be labeled a "neurasthenic."

The above symptoms are particularly noticeable in frontal sinusitis when drainage is interfered with, or become exaggerated during acute exacerbations. This is probably most readily explained by the theory that the toxins are reabsorbed into the cerebral circulation passing through the sinus walls.

Diagnosis—By careful examination of the nose before and after shrinking it, after which suction should be applied, if no secretion is in evidence.

Transillumination can be used, but it is not to be depended upon to any great extent, except in cases that can be diagnosed without it.

X-ray is a great aid and is being more and more relied upon, with possibly the exception of posterior ethmoid and sphenoid involvement, when it is not quite so dependable. It is of particular service to us in demonstrating the structure of the nose and whether the drainage functions of the upper nose are being interfered with. Enlarged turbinates impinging on the septum, or deviations of the septum pushing the turbinate over far enough to mechanically block drainage are shown, especially of the middle meatus. Drainage is the most essential thing necessary to secure relief from the symptoms, and, in a large percentage of cases, a cure will be effected without radical operation.

X-ray pictures cannot be interpreted with any degree of certainty where differentiation can be made between a hyperplasia of the mucosa and purulent material in the sinus, but in either case, we know we have sufficient cause for the symptoms.

Treatment—Of course the chronic case usually

presents itself during an acute exacerbation, and the tendency has been in the past to handle these cases as an acute one. The sinuses are entered, particularly the frontal and maxillary antrum and relief afforded. However, in a large number of cases, in a comparatively short space of time the condition reoccurs. Too often the sinus is drained and no special attention given to the underlying cause, that is; interference with drainage. We often see patients with the maxillary antrum draining pus for a period extending from several months to several years after a large opening has been made which will not heal. In chronic sinusitis, I believe a certain degree of tolerance is established, making it unnecessary, as a rule, to operate during these acute exacerbations, provided they are properly treated. To these sufferers negative pressure or suction offers the greatest relief that can be afforded, provided the nose is properly shrunk before it is instituted. The symptoms can be relieved during the acute exacerbation, and then the patient be given permanent relief, or cure, by removing mechanical obstruction to drainage. While in some of the cases there may be some reoccurrence, they are no more apt to do so than where relief is afforded by entering the sinus; in fact, not nearly as much chance of its doing so. The majority will obtain a permanent cure by obtaining drainage.

We should carefully study the x-ray picture to demonstrate the structure of the nose. Then by careful rhinoscopic examination see just how much diseased ethmoids, enlarged turbinates, or deviations of the septum, are interfering with the drainage function of the nose. The condition of the anterior ethmoid cells is a key to the frontal sinus. As a rule if the infection in the anterior ethmoid is relieved or cured, and drainage established, the frontal sinuses will cause little or no trouble.

In considering deviations of the septum, without an x-ray picture, too often high posterior deviations causing pressure symptoms by the middle turbinate impinging on it, or adhering to it, are overlooked. Too often we see cases in which a submucous resection has been done and no relief afforded because of this. As far as anterior deviations of the septum are concerned, unless they completely block the nose, they are of the least consequence in dealing with chronic sinusitis. Too often we see patients who happen to have a straight anterior septum passed on as O. K.

Wherever feasible, when there is a high deviation, a submucous operation is the operation of choice. If the middle turbinate on the concave

side has made a compensatory enlargement, it should be completely or at least partly removed. The inferior turbinate should never be sacrificed. The anterior and middle ethmoid cells, if diseased and enlarged, should be removed, especially so if there is any frontal sinus trouble. I seldom consider it necessary to puncture or open a maxillary antrum, but on rare occasions I wash the antrum with a small needle. In chronic frontal sinusitis as much permanent relief can be afforded by establishing proper drainage as by an intranasal frontal sinus operation; that is, removing diseased ethmoids, enlarged turbinates and septal deviations. Of course the radical external operation is only performed as a last resort, and is not to be desired owing to the danger and great chance of deformity, and is seldom necessary.

Vaccines—Stock, or preferably autogenous vaccines, are of some value, provided drainage is established.

Complications—Orbital complications are usually infections of the cornea and uveal tract, through the retina and optic nerve, where we may have a choked disc or thrombosis of the central veins. We also may have functional complications causing muscular asthenopia and loss of accommodation and mechanical disturbance of bulbar mobility. I have observed that astigmatism against the rule and muscle imbalance are frequently found in patients with chronic sinusitis. We may have irritation of the optic nerve through pressure, which only occurs with posterior ethmoid or sphenoid infections, giving rise to disturbance of vision. Systemic infections with rheumatism, endocarditis, etc., are also seen.

Case 1. A lady aged thirty-one years, eight years ago began to experience frontal headaches, soreness back of eye balls, general depression, albumen in the urine, blurring of vision in the left eye, which gradually became worse. Had photophobia. Was diagnosed as "autointoxication." Went along enduring miserable general health, but was under treatment constantly for four years, when chronic sinus infection was diagnosed. Parts of both middle turbinates were removed. Both antrums and one or both frontal sinuses drained on two different occasions. I first saw the patient about ten months ago. She had a pansinusitis. The antrums and the frontals having been drained only a short time ago by a good man in a neighboring city. Both maxillary antrums had large openings, and were draining freely. The patient was very toxic; large amount of albumen in the urine; got up a number of times in the night to urinate, and suffered constant headaches, but not so severe as had been previous to the operation. She had a "choked disc" with vision of 18-200 in the left eye. She was taking several suction treatments daily and obtained a large amount of pus at each treatment,

frequently four to six ounces at a time. Examination showed a very large thick septum, remnants of both middle turbinates impinging and adhering to the septum, causing mechanical blocking of drainage. A complete submucous operation was performed, at the same time removing practically all the ethmoids on both sides. Suction treatment continued; gave autogenous vaccine, which by the way had been used before without result. The patient is practically well at this time; no secretion, no headaches, vision normal, headaches gone, and the patient says she feels better than she ever remembers feeling.

Case 2. Young lady aged eighteen. Complained of difficulty in breathing through nose; constant yellowish, greenish discharge; constant headache, very severe at times; pressure feeling over the base of nose. Examination showed a high posterior deviation of the septum, with middle turbinates impinging on bulge of the septum. A high submucous resection was performed, and removed both middle turbinates and some ethmoid cells. Patient completely recovered.

Case 3. Lady forty-two years of age. Complained of constant spitting and hawking of bloody purulent material from back of the nose, worse after catching cold; could never remember being without headache; dull pain back of eyes; tinnitus aurum alternating stenosis, dry pharynx. Examination showed high posterior deviation of the septum. X-ray showed diseased ethmoid cells normal frontals. Submucous operation, followed by suction, relieved all symptoms. Patient has gained in weight and shown great improvement in general health. Tinnitus and ear symptoms have disappeared.

Case 4. Male aged thirty-eight. Complained of profuse nasal discharge for several years back; frontal headaches most of the time; pressure back of eyes; stenosis of the left nostril; tinnitus; inflammatory rheumatism two or three times; very nervous. Says he got up in the morning feeling tired out. Examination showed high posterior deviation of septum, and also infected tonsils. Removed tonsils and did submucous and double turbinatectomy; also removed some of the ethmoids. He has made a complete recovery and gained eleven pounds.

Case 5. Male aged thirty-four. Had catarrh since childhood; had much earache then and occasionally has it since; says he has discharge and cold in his head nine or ten months out of the year; almost constant frontal headache, varying in degree, worse in the morning when he gets up, at which time he is also dizzy. Examination showed infected frontal and ethmoids. Did submucous, removed middle turbinates and ethmoids, with relief of symptoms, and it looks like permanent cure.

Case 6. Male aged thirty-six. Seven years ago had nasal discharge begin, which has persisted constantly, but not quite so bad at this time. Says he had a submucous operation a few years ago; also says his turbinates were removed and about a year and a half ago had cauterization in the nose. Has con-

stant headache; epiphora; getting very nervous, and much tinnitus. Examination shows only the anterior portion of the septum was removed, and only parts of the middle turbinates, which, so far as drainage is concerned, was of no benefit. X-ray shows the ethmoids and frontal sinus infected. Advised posterior septum be resected and remnants of middle turbinates, and probably ethmoids, be removed so that he can secure drainage. Did not operate upon this case. Cite it merely to show how a partially performed operation is of no avail.

SUMMARY

The chief cause of an acute sinusitis becoming chronic is obstruction to drainage. This obstruction is usually in the post nasal septum. All patients with headaches and neuralgias that cannot be traced to the eyes should next be carefully examined for a nasal condition causing it. Pressure either within the sinus or on the nasal septum causes the pain and headache. The "vacuum" type also is quite common and should not be overlooked.

Sinusitis is a common focus for system in infection. Suction after shrinking the nose gives relief in most cases. A submucous resection with removal of part or all of middle turbinate sufficient to obtain free drainage will effect a cure in most cases. Suction should follow until the secretion disappears.

THE THYROID*

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In surgery of the neck, and of the thyroid gland, especially, a knowledge of anatomy is imperative and while the blood supply is paramount there are other tissues almost equal to it in importance. The layers of fascia I will refer to particularly, as they are second in importance only to the circulation. The superficial layer of the deep fascia of the neck surrounds the part as a cuff surrounds the wrist. Strong in some subjects, weak in others, but constant in all. Commencing at the ligamentum nuchæ it extends inward to the trapezius muscle. Here it splits to enclose the muscle. Coalescing at the inner border it extends forward over the posterior triangle, splits to enclose the sterno-mastoid, comes together again passing over the anterior triangle, it becomes continuous with the fascia of the other side. Above, it is attached from the symphysis of the chin to the angle of the jaw. Here it is continued over the parotid gland to the zygoma. Be-

yond this it is attached to the mastoid and to the superior curved line of the occipital bone. Below, it is attached to the clavicle and to the top of the sternum by a double layer of fascia.

From the inner surface of this superficial layer processes are given off which divide the neck into various compartments. One springing from the posterior layer back of the sterno-mastoid muscle runs transversely across the neck in front of the prevertebral muscles. This is called prevertebral fascia and extends above to the base of the skull and below extends into the posterior mediastinum. Another layer, also springing from the posterior layer back of the sterno-mastoid extends forward investing the thyroid gland, trachea and larynx, meeting corresponding layers of the opposite side. Above it is attached to the hyoid bone, below, it extends in front of the great vessels at the root of the neck through the superior mediastinum and is attached to the pericardium.

The layers mentioned divide the neck into different compartments which may be designated as the muscular in front, the glandulo-visceral in the center and two compartments at each side the vascular. The muscular compartment encloses the sub-hyoid muscles, the central compartment encloses the thyroid gland, larynx and trachea. The vascular, encloses the carotid artery, jugular vein and vagus nerve. The pretracheal fascia encloses the thyroid gland and to the inner side it binds the gland to the trachea, larynx and œsophagus. The thyroid gland is a dark, reddish body consisting of three parts, two lobes and the isthmus. It lies to the front and sides of the trachea extending upward to the side of the larynx. The lobes are about two inches long, pyramidal in shape. The apex above and the base below. The two latter connected across the trachea by the isthmus which covers the second, third and fourth rings of the trachea. The lobe is concave on the inner side, convex on the outer. The gland is bounded in front by the sub-hyoid muscles, to the outer side, partly by the sterno-mastoid and partly by the carotid sheath, posteriorly by the carotid sheath, and the prevertebral layer of fascia, to the inner side by the œsophagus, larynx and trachea. Its circulation consists of four arteries, two superior and two inferior thyroids and by three sets of veins on each side, the superior, middle and inferior. The anastomosis of one side is extremely free, of which I shall speak hereafter. The anastomosis from side to side is quite scanty, although, this differs from English anatomists. The superior and middle veins empty into the internal jugular. The inferior veins into the left innominate either by

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one or two trunks.

Of the different layers of fascia, the pre-tracheal is of the most interest to the surgeon as it invests the thyroid gland, sends layer over isthmus and trachea, one between the trachea and œsophagus and another behind the œsophagus meeting the corresponding layers as before mentioned. While in close relation to it behind are the parathyroids and the recurrent laryngeal nerve, it is pierced on the posterior border by the arteries and veins of the glands. In most subjects the fascial coverings of the thyroid resemble those of the prostate, an outer covering, the fascial sheath, and an inner one thin and glistening closely adherent to the gland, sending septa into it with a potential space between the two.

The parathyroid glands are four in number, two on each side of a yellowish, red color and shaped much like a grain of oats. They are hard to distinguish in a cadaver as they appear very much like lobules of fat.

The recurrent laryngeal nerves, after leaving the thorax, enter the neck and pass up to the larynx in the recess between the œsophagus and trachea. In addition to the circulation already mentioned there is another which we might call the external circulation. This consists of two anterior jugular veins and two external jugulars which lie outside of the superficial layer of deep fascia and beneath the platysma muscles.

We will now sketch the operation of partial thyroidectomy. The patient is placed with the head elevated, a small sand bag under the shoulders to make the front of the neck prominent. A transverse collar incision is made, extending up at each end, if the goiter is large. The incision is carried through the platysma, the flap is raised, avoiding, if possible, the wounding of the anterior jugular veins. The deep fascia is split and with the handle of the knife the infra-hyoid muscles are opened down to the anterior layer of the pre-tracheal fascia. This is carefully incised the full length of the wound, care being taken not to wound the true capsule of the gland. The finger is now inserted at this point of cleavage and the gland freed on its outer side, and, if possible, delivered from its bed. If restricted by the fascia or vessels, the intra-hyoid muscles on that side are incised and the gland laid bare. The vessels are now caught and cut while traction is made on the lobe of the gland. The forceps being so placed as to avoid destruction or injury of the parathyroids, recurrent laryngeal, œsophagus or trachea. The isthmus is elevated from the trachea, ligated and the lobe removed. Each point caught by the forceps is carefully ligated

with No. 2 plain catgut. The muscles, if cut, are stitched together, a drainage tube inserted, the flap brought down and stitched with a few interrupted sub-cuticular stitches of catgut and the skin united by continuous horsehair sutures.

Having now sketched the operation we will go over the different steps more particularly and point out the dangers and means of preventing them. Hemorrhage, asphyxia, wounding of the trachea, œsophagus or parathyroids, infection, acute thyroidism, injury to the recurrent laryngeal.

Hemorrhage—The prevention of hemorrhage is paramount in this operation. Therefore in lifting the anterior flap, if the anterior jugular vein is not cut, the wound is clean, otherwise, the front of the neck is obscured by blood or bristling with artery forces. After splitting the deep layer of the fascia and opening up the muscular layer, a particular point arises; the opening through the sheath of the gland down to the capsule. If this is done without wounding the gland itself, all is well. The point of cleavage is now found into which the finger is introduced and the gland enucleated. But should the gland be wounded it is dangerous to grasp the break with the artery forceps, the gland being very friable. If pressure cannot restrain the bleeding it is best to proceed rapidly with the enucleation of the gland for the hemorrhage must be restrained at all hazards; delivering the gland, traction and pressure are enough, as a rule, to restrain bleeding.

Should the gland be held in its bed so as to require force to dislodge it, the infra-hyoid muscles must be caught with two pairs of artery forceps and cut between. This exhibits the gland and it can be dislodged more readily. I have found at this stage that the use of an old fashioned tongue forceps or a Young's prostatic tractor does well to grasp the gland. The flooding of the field of operation by blood and the feverish grasping of vessels in the depths of the wound are the cause of almost all the accidents in the operation of thyroidectomy.

The steps now in the removal of the gland I wish to draw close attention to. Much of the safety depends on the placing of the artery forceps which grasp the vessels at the hilum of the gland. As a rule they are placed too close to the hilum, thereby, endangering many of the vital organs deep in the neck.

Asphyxia—This is a danger in the operation. If coming up suddenly due to pressure of the gland itself, the thing to do is to enucleate the gland at once and lift it off the windpipe, or it may be due to a portion of the gland being intra-

thoracic and it must be withdrawn from the chest at once.

Another point I wish to emphasize, and it is this, many times the forceps that are placed on the vessels are placed too close to the trachea and if traction is being made on the gland in the meantime the short pedicle by its elasticity will draw the point of the forceps against the larynx or trachea and will embarrass or stop the breathing at once, in which case they must be removed even at the risk of hemorrhage.

Wounds of the Oesophagus—These seldom, if ever, occur. But bearing in mind the layers of fascia it is evident that a wound of the oesophagus, which would give rise to sepsis would undoubtedly be fatal. By keeping the wound clear of blood and carefully placing the forceps this accident may be avoided.

Danger to the Recurrent Laryngeal Nerve—This nerve lies in the recess between the oesophagus and trachea, and in the removal of the lobe if we leave a thin layer of the posterior part of the gland with the pretracheal fascia the nerve will be spared.

Injury to the Trachea—This accident is not infrequent. The front of the cartilaginous rings frequently become almost as soft as skin. In elevating the gland and cutting for its removal it is very easy to cut into the windpipe. This accident has happened to me twice, but by promptly sewing up the rent the wound healed readily.

Infection—The ordinary means of prevention as used in all kinds of surgery today will prevent this.

Acute Thyroidism—Sometimes after an operation for exophthalmic goitre the pulse and temperature run up, the patient is restless, or even delirious. This may last from twenty-four to forty-eight hours. For its relief it is recommended to flood the patient with water given by rectum. Somehow I scout the recommendation. In the more phlegmatic patients, those whose pulse and temperature are not elevated a great deal, and who are not restless, water is scarcely indicated, and in those high-wrought patients I sincerely believe that the irritation of a rectal tube will do more harm than the water will do good. For those I would insist on a darkened room, a soft-spoken, firm nurse, and absolute quiet. As to the exhibition of water I would prefer giving it by mouth even if there is great difficulty in swallowing.

Dyspnoea—Sometimes after an operation the patient will experience great difficulty in breathing. This is most likely due to the dressing being too tight, or the drainage tube being too stiff and

interfering with the trachea. The remedy is obvious.

I wish to call attention to the manner of placing forceps on the intra-hyoid muscles as recommended by some of the leading operators of today. They recommend that the forceps be placed as high as possible so as to conserve the nerve supply to those muscles. Placing the upper forceps as high as possible causes it to be anchored to the larynx by the short pedicle of insertion of the sterno-thyroid with the handle extending across the neck in the way of both the operator and first assistant. The conserving of the nerve supply is quite unnecessary as they are spinal and therefore mixed nerves and if cut will be restored. I would suggest that the forceps be placed from three-quarters to an inch lower so that both instruments can be carried over the side of the neck out of the field of operator. Another point I wish to call attention to and that is the ligation of one or both of the upper poles as a curative measure for incipient goiter or preliminary treatment for desperate cases. For years I have noticed in well injected subjects a comparatively large arterial channel on the posterior border of the gland connecting the superior and the inferior thyroid arteries. This I have found almost constant. With this blood supply so free it is by no means clear to me how anything can be gained by such procedure.

As to the parathyroids I shall have but little to say for in my dissections the last ten years I have succeeded in finding but one, demonstrated by the microscope. Last month I searched for them again by removing the gland and adjoining viscera in a fresh subject. After careful search I thought I found another, but am not sure. A number of our surgeons claim to find them readily, but, if they do, they certainly excel me. In my operations I take it for granted they are close to the posterior capsule of the gland and carefully avoid their supposed situation.

Discussion

Dr. D. C. Brockman, Ottumwa—The only criticism I would make on the excellent paper presented by Dr. Magee is that it is a dissertation on the thyroid instead of on how to cure the patient that has the thyroid. Treatment limited to the thyroid is very unsafe. The doctor who treats the patients who is unfortunate enough to have an enlarged or a diseased thyroid is the safe man for that patient. I mean by this that the study of the case and its symptoms and the type of involvement of the thyroid this patient has, is the most important thing in the case because each group of cases is treated in a different way. The case with an adenomatous thy-

*In vol. i, 3rd Number Murphy's Clinics, etc., etc.

roid that requires removal is a very simple one. Any man with a knowledge of anatomy and physiology, one hundred hemostats and a fair degree of surgical common-sense, can take care of that patient all right; but not so the one with hyperthyroidism. That case must be studied from every angle. The heart, the nervous system, the infection of the system by the internal secretion of the thyroid, must all be investigated and the patient treated in the best way possible to relieve the condition. Usually the nervous patient should be put to bed, kept quiet and given sedatives that will allow her to regain control of the circulation and nervous system, in the severe cases not attempting to operate at once. She should be kept in bed long enough to get her quieted. If the heart is bad, as it usually is in these cases, the thyroid arteries should be tied one after the other and then the case allowed to wait until the heart has regained sufficient strength to permit the radical operation. Any one that has surgical sense can do the operation of thyroidectomy, but it requires the highest degree of skill to differentiate the different types of trouble, the different forms that thyroidism takes to break down the nervous system and the heart. And therein lies the success of the man who treats the enlarged thyroid. The question depends entirely on his ability to interpret the symptoms, to weigh the degree of resistance which the patient may have to enable her to stand the operation. The mode of operation is a matter of minor importance.

Dr. W. W. Bowen, Fort Dodge—It has been stated that Dr. Magee is the most belligerent man in southeastern Iowa, and that is true. But that is not all there is about Magee; I think he is the hardest worker in southeastern Iowa. There is not a man in Iowa outside the State University that knows as much about anatomy as Dr. Magee. How has he got it? For years there have been laws against surreptitious dissection in Iowa, and also in the community in which Dr. Magee lives there is a sentiment against it, especially among the colored people. But Magee does not have any more regard for the sentiment of the community relating to that than he does for his neighbor's bee-tree, because he is as good with an ax on his neighbor's bee-tree as he is with the dissecting-knife. So in the little room back of his office, day after day and night after night, he sits there with eternal vigilance, his only companion being the cadaver. Now, it is owing to his belligerency that he can pull that sort of thing off, because one time he was raided on account of the sentiment in the community in that section, and Magee came out with all the fortitude of Andrew Jackson, whom he resembles in other ways besides his looks, and by the severity of his expression, the vehemence of his manner, and the eloquent flow of cuss words he let loose he put them all to flight. Dr. Brockman in a way criticized the paper because Dr. Magee did not take up the symptomatology of thyroid disturbance. But that was not the subject which had been assigned to him. He gave us a few practical points on the operation of thyroidectomy that are worth any-

body's while: One was the avoidance of injury to the capsule and to the recurrent laryngeal nerve, another the advisability of making the pedicle long, another was the anatomy of the part, which is so intricate that not very many men in this audience can appreciate it, and another was the control of hemorrhage. Dr. Brockman made the statement that any one who had surgical sense and one hundred hemostats could perform a thyroidectomy. The first statement is not true. There is no operation that requires more skill, with more complications to be avoided, than does thyroidectomy. Moreover, if the surgeon does it in the way, Dr. Magee told him to do it he would need only about ten hemostats.

Dr. Magee (closing the discussion)—From what has been said, gentlemen, you will understand that I am not carrying more than two guns this morning. It is very true that we make the colored gentry down in Burlington jump sideways when it comes to dissection, and we not only dissect him when dead, but sometimes with his clothes on and a-running. I thank the gentlemen very kindly for the words that have been said. In regard to my friend Bowen, he has, I think, drawn on his imagination which is somewhat flaming. But I thank the gentlemen who have discussed the paper, and assure you that I appreciate the kind attention you have all given me.

ANOTHER SANATORIUM FOR TUBERCULOUS SOLDIERS

According to an announcement made by Surgeon General Hugh S. Cumming, the magnificent tuberculosis sanatorium heretofore operated by the army authorities at Fort Bayard, New Mexico, has just been transferred to the U. S. Public Health Service, and will soon be available for treating discharged, disabled soldiers. Splendidly located, not far from Silver City, and conveniently accessible on the Santa Fe Railroad, this sanatorium has long been the pride of the army. The climate is almost ideal, in that it permits outdoor life for a large part of the year.

The Fort Bayard Sanatorium will provide the Public Health Service with 1,000 additional beds to care for its tuberculous patients. The present sanatorium at Deming will be held in reserve, specially for winter use.

At the Fort Bayard Sanatorium the Public Health Service will treat only ambulatory cases of tuberculosis, in which the prognosis is favorable. Patients will be admitted only after careful observation elsewhere to make sure that their condition is suitable for successful treatment at the high altitude of this sanatorium. In general, it is the policy of the Public Health Service not to move patients far from their homes, for experience has shown that such removal often has an unfavorable effect. For this reason patients for the new sanatorium will probably be drawn principally from the middle and southwest sections of the country.

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MEDICAL MEN IN THE LEGISLATURE

The names of several physicians have been mentioned in the press as candidates for the next session of the Iowa legislation. This is as it should be. Never in the writer's recollection has there been so great a need of active, trained physicians in the legislature as at the present.

There is a need of constructive policy, which shall direct public activities in channels opened by the war, not opened really but made apparent. Long before the war we were silently approaching conditions which thoughtful people felt were to come, but the war precipitated them and we have them before us now. We do not feel like going outside of the field of medicine and conditions of public health. All classes have their problems directly affecting their various callings, including doctors, and all classes are interested in public health and welfare. It would be untrue to say that each class has problems that only relate to themselves and of little or no importance to others, there is always an interlocking relationship of essential interests. It would be unfair to say for instance, that physicians raising their fees was of interest to themselves only, for the public must pay the bill. The same is true of farmers, merchants, bankers and others. It may be said that class legislation is unconstitutional and cannot hold, but we all know that falling short of class legislation, an unjust hardship may be worked upon others, therefore all taxpayers should be fairly represented in the law making

bodies. More important, perhaps, than this is the election of men of wide views and experience, men who do not stand for selfish personal interests but for the general welfare of the public and there is no class better fitted than physicians.

In the earlier days of Iowa's history a very large percentage of the strong men in the profession appeared in one or the other houses of our legislative bodies, but as the medical profession became more specialized our medical men became more averse to standing as candidates for the legislature, they are unwilling to make the sacrifice and suffer the loss of business and suffer the risk of being known as "political doctors." This attitude is unfortunate. In other great countries like England, France, Germany and Italy many of the most distinguished medical practitioners at one time or another appear as members of law making bodies. It is true that in our country a certain degree of reproach has rested upon men in political activities, but it should not be so and would not be if responsible citizens would accept the duties plainly resting upon them.

It is refreshing from this point of view to observe the attitude of the medical profession in Webster county. Dr. J. W. Kime, one of our most noted medical men, has received the endorsement of the County Medical Society for the state legislature and we trust will be nominated and elected. If he should fail, we sincerely hope that not only will Webster county repeat its efforts in the future but that other counties will follow this example. There are several other medical men in the state who have announced themselves as candidates for the legislature, men whom we personally know to be fit for the position. We trust that professional jealousy will not stand in the way of giving them full support. What does it matter if this one is a Republican or that one a Democrat. Are we not all interested in efficient laws and good government?

We feel a just pride in the constructive legislation of the last session of the Iowa legislature, and we offer a tribute of praise to Dr. G. A. Smith, of Clinton, for the fine work he did in securing welfare laws for the betterment of the unfortunate classes of our citizens.

We are not advocating any specific legislation, but we are begging for a body of men who will assemble in Des Moines next year in the interest of the general public and nothing could be more helpful than the election of every medical candidate who has offered himself, not to his personal advantage it may be, but to the advantage of the public.

FEE BILLS

There appears to be a general movement on the part of the county societies to increase fee bill rates. The reason for this is the greatly increased cost of carrying on a medical practice and the increased cost of living. In the interest of general welfare the doctor, if it was only the increased cost of living, might practice greater economy, get along with fewer things, lessen the provisions he is making for old age and disability. But when it comes to the fixed charges for carrying on the business this becomes impossible. Office rents and house rents have doubled in the last few years, supplies of all kinds have much more than doubled, office clerk hire has nearly doubled, no community would have patience with a doctor who did not run a good automobile. Books and instruments have greatly increased in cost and the increased demands for medical efficiency on the part of the public correspondingly increases the expenditure for these things.

There seems no other alternative than that doctors must increase their charges for all kinds of service. The doctor who lives in a town of 20,000 or more must pay out in expenses from \$200 to \$300 per month before he comes to his living. This is a fact that the layman rarely considers.

From the lay press we conclude that the increase in medical fees in relation to general practice will be a strong argument in favor of some form of state medicine or "Health Insurance." We can conceive of the political legislator making an issue on doctors "greed" losing sight of the fact that a doctor's very efficiency depends on being able to supply himself with the means and agencies to conduct a modern practice. Our own opinion, as expressed on former occasions is, that the public in its own interests should endow local or community hospitals in such a manner as to do away with "charity" practice, and that free medical service on the part of the doctor should be one of the things of the past. If this were done fees could be reduced. The hospital would be the center of the medical activities of the community and the expensive equipment could be used in common by all physicians materially lessening the overhead costs of medical practice. Without invoking state medicine the practice would be private practice with a moderate amount of state or community aid.

In England, when the pannel system was adopted by law, it was found that one-half of the people receiving \$1000 or less per year rarely or never received medical treatment, so that the pannel physicians instead of receiving less money

than before received in fact nearly twice their former incomes. Under present methods of medical practice fees must be increased or many physicians must retire. Doctors, however, must bear in mind the effect on the public of more than a moderate increase.

The fee bill adopted by Polk County Medical Society has received much adverse criticism on the part of the newspapers but from an examination of the press reports, it is not made quite clear, whether the Society is responsible or Dr. Duhigg, if as it would appear, that Dr. Duhigg is the moving spirit it is much to his credit, inasmuch as Captain Duhigg is a high officer in the United States Navy and is independent of local fees.

THE SIXTY-NINTH SESSION OF THE IOWA STATE MEDICAL SOCIETY

This was easily one of the most successful sessions of the Society. The success was in large measure due to the Committee of Arrangements and the cooperation of the management of the Fort Des Moines Hotel. The advantages of holding all the sessions and principle functions under one roof was apparent. This was illustrated at the Fort Dodge meeting and previously at Sioux City. The program could be kept up to time much better. The papers before the scientific sessions were of sufficient merit to bring a good attendance and a full discussion which was maintained in excellent spirit.

The House of Delegates, which is looked upon as the storm center of the Society, and where ill feeling, if such exists, comes to the surface, we are advised performed its duties in a dignified and loyal spirit. Three names were presented by the Nominating Committee for President to be voted on by the House of Delegates.

The merits of the three candidates were so closely balanced that it was difficult to determine which one of the three should be voted for and it became a matter only of personal preference, which it is often difficult to account for. Dr. A. M. Pond, of Dubuque, receiving a majority of the votes, was declared elected President for the ensuing year. Des Moines was made the place of meeting for 1921.

A graceful act on the part of the Society was to present the living ex-presidents with a gavel, as a souvenir of his past relationship to the Society. For some years past it had been the custom of the Society to present the presiding officer with the gavel with which he maintained order when the House was in session. It was felt that some of

the older presidents who were approaching the end of their professional careers should be likewise honored and at the close of the President's Address ex-President Treynor presented these old men with the badge of former greatness. Ex-Presidents Wahrer, Schooler and Priestley responded in behalf of their associates.

The banquet by the Polk County Medical Society on Wednesday night was a notable one in every respect and was fully appreciated by all who had the privilege to attend.

THE NEW ORLEANS SESSION OF THE AMERICAN MEDICAL ASSOCIATION

This session did not differ materially from previous sessions. The war interests had mainly disappeared, a few men belonging to the regular establishment appeared in uniform, but the predominant spirit which moved the Association during war times had passed and only the meeting of the Military Surgeons Association on the previous week was left to remind us that we had recently passed through one of the most trying periods in the history of the human race, so quickly we react. Nevertheless there was an under current of unrest which could not be fully accounted for and which created a feeling that the end had not come. It was our good fortune to have attended the Association at the same place thirty-five years ago, when the Old New Orleans still existed, and very few changes had taken place in the city since the Civil War. The South had not recovered from the prostration of the war but there were appearing signs of the coming of better times and of better feeling, while here and there was to be seen a spirit of bitterness, altogether the spirit of hopefulness was constantly apparent. There was none of the sordiness of the present moment when men appear to have lost confidence in each other and have gone in the chase of the dollar and the luxuries that only the most fortunate could hope to secure thirty-five years ago.

The large attendance at the recent meeting created a congestion everywhere that lessened the pleasure of the gathering and was exhausting and disappointing to those who had passed the activity of their earlier days. But altogether the session was a success. The contest for the Presidency lay between the active and aggressive. H. Works of Pueblo, and the cultured de Schweinitz of Philadelphia, which resulted in the election of Dr. Works by a good majority it was a manifestation of what we call American Democracy.

SOUTH AMERICAN SURGEONS

Theodore Roosevelt, with characteristic courage and vigor, overcame all opposition and caused the Panama Canal to be built. The dream of nearly five centuries was realized. The whole world is forever Roosevelt's debtor. By the severance of the land connection between North and South America these two continents are now united as never before. The long, hazardous routes of travel of the olden time have been replaced by new ones, safe and speedy. The great war came so quickly after the completion of this epoch-marking achievement that it has not yet touched Pan-American imagination.

Having returned recently from a trip to South America where, in company with Dr. Franklin H. Martin, I visited some of the important surgical clinics of Peru, Chile, Argentine, and Uruguay, where we became acquainted with and observed the methods of many surgeons, I take this early opportunity to pay merited homage to these men of science, learned in surgery. It is but just to say that in their hospitals and operating rooms they are the equal of any representative group from any country in the world. They have that initiative clarity of thought and facile mastery of technique which we associate, and rightly, with the French and Italian schools. The surgeons of South America have recognized for a long time the necessity of frequent clinical trips to observe the work of foreign surgeons; of late years many of them have come to the United States; it has been always a pleasure to know them.

Their medical schools are splendid institutions with a seven-year course, and are the equal in equipment and methods of theoretic teaching of any in the world. In South America "Commencement Day" means just that, for after graduation the young surgeon begins a special course of surgical training. Instead of carving his way to knowledge and experience by the scalpel, he is tutored for a period of from eight to ten years along lines which we of the United States have accepted only recently under the general term of fellowships in graduate medicine and surgery.

The hospitals of South America are imposing, built for the tropics, and associated with the medical schools. The hospital records are the best I have ever seen; this is true of every hospital we visited, small or large.

The reception given us by our South American confreres was most cordial, and we came away with not only admiration for the South American surgeon as a surgeon, but also with a feeling of personal friendship for him that will last for life. Whatever may be the after-war responsibility of the United States abroad, we can not question that our first duty is to develop a sound Pan-Americanism.

A Pan-Americanism of science, a unity of the spirit and ideals, will be more lasting than measures based on financial, commercial, or political considerations.

William J. Mayo.

A TRIP IN BEHALF OF THE AMERICAN COLLEGE OF SURGEONS BY DR. WILLIAM J. MAYO, PRESIDENT, AND DR. FRANKLIN H. MARTIN, SECRETARY-GENERAL. JOTTINGS OF THE SECRETARY-GENERAL—CONTINUED

By Franklin H. Martin, M.D., F.A.C.S.

I. Actual Surgery

"What about the surgery you witnessed?" This is the question most frequently asked. Unfortunately, we had but one or two opportunities to see the surgeons at work. One morning, in the course of hospital inspection, we saw three operators at work in as many institutions. The first surgeon was operating on an ectopic pregnancy, in which a primary rupture had occurred, and the patient was exhausted by the serious hemorrhage. The operation was skillfully performed. In another operating room the surgeon was doing a careful dissection on a strangulated inguinal hernia, under a local anesthetic. An eight-inch, gangrenous intestine was revealed. The operation was ably managed under surroundings that were perfectly safe, although the operator was undoubtedly surprised at finding himself the observed of the premier surgeon. In a neighboring hospital we witnessed an appendectomy. A gangrenous appendix was removed in the routine way. The morning's observation revealed surgery equal to that of the best hospitals of New York City, Chicago, and Rochester.

In other cities we witnessed parts of procedures, and in each instance the surgery was apparently of the highest class. I am quite sure that Lima, Santiago, Valparaiso, Buenos Aires, or Montevideo could entertain a surgical society of the United States or Europe and give a surgical demonstration that would reveal a broad experience, approved facilities for diagnosis, recognized technical ability, and a fundamental knowledge of surgery that could not be excelled anywhere.

II. Panama

It is now well recognized that the Panama Canal could not have been completed if it had not been for the sanitary regulations that were devised and enforced in connection with the work of digging and constructing. The Medical Corps of the United States Army was responsible for this accomplishment. This Corps, through the self-sacrifice of its members, revealed the course of malaria and yellow fever, and discovered and applied the remedy. The miracle of the completion of the Panama Canal could not have been attributable to Theodore Roosevelt alone even if it had been necessary to occupy much more territory; nor to General Goethals alone even if the Culebra slides had been multiplied ten times; but to that lovable man who, with his associates of the Medical Corps of the Army, applied the rules of modern sanitation, rules based on fundamental discoveries, and administrative regulations formulated

by this same great scientist, Major General William C. Gorgas.

III. Major General William C. Gorgas, M.C., U. S. A., Retired

One does not wonder that General Gorgas loves the beautiful spot that his genius made possible, and that he saw rise from a tropical jungle of pestilence to a paradise for men—the destined garden spot of the world.

Once while General Gorgas and the writer were waiting for an interview in the office of the Secretary of War, we spoke of the horrors of the war in which we were both so busily engaged. I remarked to the General that it must seem to him that fate had pursued him pretty closely; after all the work he had done in sanitation to be suddenly called upon to raise an army of civilian doctors for the greatest war of history. "Yes," he said, "I wish the horrible war were over." I said, "What is the very first thing that you would do, General Gorgas, if tomorrow morning, before arising, you should receive a telephone message assuring you that the war was ended?" "Do you know what I would do?" he asked, while his eyes had a far-away, wistful expression. "I would ring off, call New York City, and order a passage for South America. I would go to Guayaquil, Ecuador, the only place in which yellow fever is prevalent, exterminate the pestilence, and then—and then return to Panama, the garden spot of the world, and end my days writing an elegy on yellow fever."

And this was not the mere day-dreaming of a man overwhelmed by a stupendous job, but the real yearning of a peace-loving man, who, within a month after the armistice, accepted a commission from the Rockefeller Foundation to go to Guayaquil, Ecuador, to do the very job that he wished to do.

While Dr. Mayo and I were visiting the President of the Republic of Peru, he spoke affectionately of General Gorgas and said that three of the South American Republics—Peru, Ecuador, and I believe Colombia—had appointed General Gorgas the official Inspector-General of Sanitation for the Western Coast. Unfortunately, we missed General Gorgas at Panama, as he was on his way south and we had passed each other en route without realizing it.

IV. Senor Javier Prado

We were afforded the pleasure of visiting Senor Prado at his palatial home, with its private museum containing antiquities of the ancient Peruvians and of the Incas of the pre-Peruvian age. Senor Prado is a son of a distinguished Peruvian who was President of the Republic at the time of the last war between Peru and Chile. He has gathered one of the most complete collections of ancient Peruvian pottery now in existence. Many rooms of his home are filled with unusually beautiful coco bolo and mahogany carvings. His art gallery contains some of the finest works of Peruvian painters. He has collected from France and Italy excellent bronzes, marbles,

miniatures, cameos, and fans. One of the sleeping rooms is a marvel with carved furniture and cabinets of native coco bolo and mahogany, while the polished floors are covered with some of the most perfect Vicuna rugs that we saw in South America. From the windows one viewed the patio, which is a particularly artistic feature of this palace which is situated in a country where tropical gardens of great beauty are seen everywhere. An interesting room is one which contains many busts and the family portraits, a number of which are likenesses of his illustrious father in the gorgeous uniforms of his time with many decorations. Senor Prado is a most charming host, and he is extremely modest in exhibiting his treasures. One of the marvels of his collection is a room filled with the skulls of Inca chiefs, many of them having been distorted and reduced by cunningly devised pressure apparatus used by these aborigines. The Senor's secretary brought two of these precious skulls to Dr. Mayo and myself at our hotel in Lima. These are mementos that we shall prize forever as reminders of an enjoyable visit to a most interesting man.

V. Honorary Fellowships

Honorary Fellowships in the Sociedad de Cirugia del Peru were conferred upon Dr. Mayo and myself, under interesting auspices. The ceremony occurred in the main lecture room or amphitheater of the Medical Department of the University of San Marcos. This university, by the way, was established just one hundred years before the founding of Harvard University, making it by far the oldest university on the two American continents.

We assembled in the main lecture room, on the large platform of which were the members of the Sociedad de Cirugia and of the Faculty of Medicine of the university. The President, Dr. Juvenal Denegri, occupied a seat at the center table, with Dr. Mayo and myself at either side. Flanking us were the members of the Faculty and of the society. On the main floor or amphitheater were about two hundred students. The back of the amphitheater opened onto a court filled with tropical plants, palms, and flowers. This could be seen through an attractive colonade which outlined the assembly hall. The students, a splendid group of young fellows, were in their places when we entered and filed onto the platforms. They rose in a body and cheered and applauded for several minutes. It was a reception that was rather stirring, and warmed our hearts to the future medical profession of Peru.

The President, Dr. Denegri, read an address of welcome to the two candidates for Honorary Fellowship. In the meantime, we had received copies of the English translation of the address. A second address was read by the Secretary of the Association, Dr. Francisco Grana. The Honorary Fellowships were then separately conferred by the President, and engraved parchment certificates presented to us as evidence of this honor.

As Dr. Mayo rose to speak, he received an ovation

from the faculty and students that plainly deeply touched him. It was some time before he was allowed to express his pent-up feelings and to say to them how much we appreciated their great hospitality and especially the honor they had just conferred upon us. He then described the object of our visit to South America. My own talk was received with an enthusiasm that I was at a loss to understand. In responding, the most I could do was to congratulate everybody on something: the splendid body of students for being educated in the oldest university on the Western Hemisphere, in a medical school with a seven-year course; the faculty for being privileged to teach in the university, with such an attractive student body; Dr. Mayo and myself for being so fortunate as to be privileged to visit this institution and to receive such a reception. The brief talk was suddenly terminated and was followed by the most enthusiastic applause, too much for the conventional and rather commonplace talk. It occurred to me that there was some compensation in being brief and in speaking in an unknown tongue. It transpired, however, that these were not the reasons. It seems there has been quite a partisan controversy in the medical department over the length of the course, viz., the seven-year requirement for a medical degree. This had been discussed 'pro and con with considerable feeling, the students being divided into two factions, one opposing the long course and the other upholding it. In congratulating them on the seven-year course, I had used the sign language by holding up seven fingers to emphasize my speech. Each of the two groups to the controversy interpreted my remarks as favoring its contentions; hence the outbreak. As a matter of fact, Dr. Mayo and I soon found that our talks when brief and least understood were most heartily received.

VI. Importance of Standpoint

Dr. Mayo, as we all know, is the philosopher of practical surgery. We may not have thought of him as a philosopher-poet, but on a number of occasions on this remarkable trip of ours the claws of practicality were padded, and in the purple atmosphere of the southern continent the poet emerged. "In coming to South American," he said to the Secretary of State of Uruguay, "we have succeeded in changing our standpoint. In our northern continent we live under the polestar, and our whole view is from the standpoint of the northern heavens. Now we have visited and viewed for the first time the heavens of the southern cross, and with this experience our range of vision has been broadened and the expense of our standpoint has been doubled. In the future, America will mean to us all-America, including that under the pole-star, and no less that under the southern cross."

VII. Survival of the Fittest

How little do we know of the people of the southern continent! We were accustomed to thinking of them as the inhabitants of a number of small republics which would compare in area to so many of the

states of our own country. In our ignorance we considered them, of necessity, more or less provincial. Our idea is now changed. Instead of being provincial in their attitude toward life, we found the peoples of South America to be the broadest and most cosmopolitan in the world. And why shouldn't they be? The continent of South America, including the Central American states, was the first to be explored by European countries. Taking Peru as an example, review for a moment its history. It had an ancient civilization that antedated by several centuries the discovery of America. This race was overrun, and after a prolonged struggle it was conquered by armies of Spain, led by the most competent adventurers. With the subjugation of the Incas, the Europeans intermarried with this strong race of natives, and for four hundred years this melting-pot has been fed by the men and women of vision and adventure of Europe—England, France, Italy, Germany, and Holland—and from it has emerged a strong nation of self-reliant Peruvians, which represents the survival of the fittest of centuries of evolution.

And that is how they appear! They are of strong physique, self-reliant in attitude, their strength of character predominates, and they are ambitious for self-education; they are not satisfied to retain a local outlook; they are not as we are prone to be—selfish in our preparation for intercourse with the world; they, most of them, know and cultivate at least two continental languages besides their own; they seek a classical education at home and supplement this with world travel and study abroad; they are people of strong temperament and broad vision, and they are interesting in their social intercourse with each other and with the strangers within their midst who are properly vouched for. And here, in a country that is a paradise of beauty, a wonderful people is pursuing its life, conscious of its worth, and with a world experience that compares favorably with the best of its continental confreres.

And what applies to Peru is equally true of Chile, Argentine, and Uruguay—similar experiences, similar conquests, similar European emigration, similar yearning for independence; fertile land, mountains that are filled with minerals, and climates that attract the lovers of life; these are the ingredients of a melting-pot that has evolved a new people in a new civilization that cannot longer remain unrevealed.

VIII. A Double Conquest of Peru

From the Log, January 25. A day of rest after three strenuous days of business, pleasure, and interest in Peru. It is Sunday. The festivities are over and the guests have departed. It is in the small hours of the morning; the floors of the deserted halls are still covered with confetti; and the few guests remaining are talking over the triumphs of the party. Strenuous entertainment transpires so rapidly that one fails to grasp all of the thrills of it until he reviews it in retrospect. So with the visit to Peru. The three days spent there will become

more and more interesting and important as time goes on. In talking it over, Dr. Mayo and I feel that we have been veritable Pizarros—Dr. Mayo the leader and the rest of us his lieutenants. We have brought down certain ideals and our object has been to reconquer Peru. Our victory is different from the old one in that those whom we came to conquer have outgeneraled their adversaries and conquered us.

And so Pizarro sits this Sunday morning under a white canopy on the deck of his flagship, surrounded by his faithful adherents, and enjoys a day of rest. The coast of the conquered continent is within sight, and over the rugged hills of the shore-line occasionally appear the snow-capped peaks of the second tier of mountains. We are just under the line of the sun on its excursion back from the Tropic of Capricorn, and the rays are perpendicular. But Pizarro and the conquering army care not because the Humboldt current with its cool water from the south pole has also brought a gentle, cooling breeze. So while the church bells in all parts of the world are calling the men and women to worship, and to observe their prosperous neighbors' apparel, we too take stock and give thanks for the wonderful new friendships we have made. But the chief, in his thirst for conquest, is drawing a new line on the map of the continent—a red mark which extends to Chile, Argentine, and Uruguay, and the ship turns its prow in that direction.

IX. Dr. Marcelino Herrera Vegas

Dr. Marcelino Herrera Vegas, who is easily the dean of surgery of the southern continent, is a man whom it is an exceptional honor to know. He has the face of a seer, and he possesses a sensitive, asthetic temperament. He is of a family of distinguished Argentinians, the estate of which dates back to the foundation of the Republic. His town residence is a palace—the repository of works of art in painting, sculpture, literature, and the furnishings of a refined household. His library, with its gallery, is a cabinet of exquisite taste and appropriateness. With his own hands he has cross-indexed and catalogued the contents. The books, all his friends, are clothed in appropriate and substantial bindings, as he would dress his sons and daughters whom he loves. He writes with his own hand his literary contributions and gets recreation by making his own research. When his eyes and brain are tired, instead of playing games, he practices his languages and reviews his poets by writing plays in long-hand and by copying his favorite poems. He has twice written the plays of Shakespeare in long-hand to aid him in perfecting his English. To illustrate some point in conversation, he occasionally quotes to you a thought from an English, German, French, or Spanish poet, and then repeats the exact words with the interrogation; "Do you remember?" And, of course, as a rule you do not. Men of his class seem to have sufficient time in which to crystallize their knowledge, and they have a knack of utilizing their learning without appearing ostentatious. Dr. Vegas would rather know thoroughly the great thought of a master, in

order that he might live it, than be the originator of something but little better than the commonplace. We, in rapid-fire America, must seem crude and immature in comparison with the associates of this man who reads his classics, and who has gained for himself a knowledge of the best of the ages. And with it all he is a practical teacher of surgery; he is a skilled operator; he endeavors to redeem the cripples and to save the lives of the poor of Argentine; he is a scientific man in the understanding of his art; he visits hospitals, dresses wounds, is a time-server, follows schedules, and consults time tables. When the summertime has come and he is through with his classes and the day's work is done, he does not employ his time in useless play, but goes to his hacienda and lives with the out-of-doors, the companions of his estate, and supervises the cultivation of the land. He watches trees grow that were planted by his grandfather, and he plants trees that will be watched and enjoyed by his grandchildren. This is our friend as we learned to know him—a superb character, a true gentleman, and one who is greatly admired by his confreres.

And this is the type that we met among the professional men of the cities of the four South American republics which we visited. We found a premium placed upon education, a knowledge of the languages, and experience gained in foreign travel. The cultivation of the finer graces is encouraged. The study of art, literature, and music of the highest quality is pursued, and a knowledge of the finer arts is considered essential to good breeding. I wish that all of our friends could know as we do these outstanding characteristics among their maturer men, who are so honored and looked up to by their younger followers and admirers—Gregorio Amunategui, Alberto Adriasola, and Lucas Sierra, of Chile; Marcelino Herrera Vegas, Daniel J. Cranwell, and Pedro Chutro, of Argentine; A. Ricaldoni, Enrique Pouey, and Gerardo Arrizabalaga, of Uruguay; and Juvenal Denegri, Miguel C. Aljovin, and Guillermo Gastaneta, of Peru.

X. The Romance of a Dental College

February 13. An interesting diversion this morning was a visit to La Escuela Dental, the dental department of the University of Chile, at Santiago. The Dean, Dr. Jerman Valenzuela, was our host and conducted us through a modernly equipped dental school. This institution has accommodations for three hundred students. Each student has a complete equipment, including a dental chair, instrument cabinets, instruments, supplies, and a laboratory for conducting a scientific clinic in dentistry. The building covers an entire block and is two stories in height. It is comparatively new and splendid architecturally.

Attached to the founding of this department of the university is an interesting romance which involves the supposed murder of a German Consul; the burning of the legation; the mysterious disappearance of the janitor of the building, and of a large sum of

money belonging to the Consul's country which had been taken from the safe. A search among the ruins revealed the body of a man, much disfigured, on which were found the shirt-studs, cuff-buttons, and other personal effects of the Consul. The Chilean Government was much humiliated by the atrocious murder, and proceeded to make amends for the tragedy in every possible way. The official received a magnificent burial, and the state vied with the municipality in doing honor befitting the station of the deceased and the country which he represented. During the inquest, Dr. Valenzuela, the dentist, requested the privilege of examining the jaw and teeth. He made careful notes of his findings. He discovered that the murdered man had splendid teeth without fillings or defects, and that one wisdom tooth was missing. He then consulted the wife of the Consul and learned that her husband had had defective teeth and had been the subject of considerable dental repair. The wife of the janitor stated that her husband had had perfect teeth and had consulted a dentist on but one occasion, when he had had a tooth extracted. This information, which confirmed Dr. Valenzuela's suspicion, was communicated to the proper authorities. The investigation that followed led to the capture of the official who had become snow-bound in the Andes in his attempt to escape with his bags of gold. He was brought back to Santiago, tried for the murder of the janitor and treachery to his government, and finally executed. In the meantime, the janitor had received a state funeral. He had been buried with great honor, and his remains placed in a mausoleum, as befitted the rank of an honored official of a great nation. The clearing of the mystery had relieved the Chilean Government of serious humiliation and embarrassment. Attention naturally turned to the unostentatious man who, by careful observation, had been instrumental in clearing up the international disgrace. What could the government do for him? He asked nothing for himself, but suggested that he had long possessed an ambition to build a model dental college for Chile. The Chilean Government asked him to present his plans, and the final result was the establishment of the thoroughly equipped institution that we visited today. We received a hearty welcome from this "Sherlock Holmes," Dr. Jerman Valenzuela, the Dean of La Escuela Dental, who has every reason to be proud of his ideal institution.

XI. A Demonstration of Efficiency

The pace for many days had been a fast one. On leaving the dental clinic in Santiago, Dr. Mayo, who is always considerate of his associates, intimated that I was looking rather peaked and suggested that I return to the hotel for a little rest, as our afternoon was to be a strenuous one. This, to me, was a welcome suggestion. The officials accompanying us suggested that they utilize my incapacity to give us a demonstration of their municipal service. The city has developed a personal service organization. Any

individual in distress may, in case of injury or sudden illness, call for aid from any public telephone. An immediate response is accorded in the form of an auto ambulance, with a medical attendant. We were fully two miles from the hotel. I enthusiastically consented to become the victim for the experiment. A telephone call was made, and we were asked to time the response. In less than five minutes, considerable commotion was evident in the narrow street, and with a rush an attractive, clean ambulance landed at the curb. A white-coated official conducted me to the coach and placed me upon the couch. The ambulance turned and, working continuously a three-noted siren that could be heard for blocks and which all traffic is bound to respect, started for the hotel and arrived within the prescribed time—five minutes. It was a wild ride, because it was an official demonstration, and the importance of time on this occasion seemed to be thoroughly appreciated by the attendants. However, we reached our destination without killing or maiming any people or dogs, and without catapulting any cathedrals or corner drug stores.

The Chileans are a progressive and efficient nation, and this is obvious to the casual visitor. The Chilean Government, Army, Navy and Municipalities all reveal thorough organization, thrift, and administrative ability of the highest order. The little demonstration referred to above was a practical illustration of their attention to detail.

XII. Our Method of Travel

It was difficult for us to make arrangements by which we could cover the necessary territory and return within the reasonable time limit of not to exceed two months. We, therefore, took advantage of a travel tour which was organized by the American Express Company, and the details of their plan were so generously carried out that we have not regretted traveling in that way rather than independently.

Our ship was the "Ebro" with an English crew and management. This eight thousand-ton, twin-screw steamer was built especially for cruising just before the outbreak of the war. It was thoroughly well-equipped for tropical travel, and possessed luxurious, modern conveniences.

Itinerary

January 7, Wednesday—Sailed from New York.

January 13, Tuesday—Kingston, Jamaica.

January 16 and 17—Panama Canal.

January 22, Thursday, to January 24, Saturday—Callao, the port for Lima, capital of Peru.

January 26, Monday—Mollendo, a typical Peruvian port.

January 27, Tuesday—Arica, a Chilean port, popular as a seaside resort. An excursion by rail to Tacna, the "oasis city."

January 28, Wednesday—Iquique.

January 29, Thursday—Antofagasta, the port through which most of the products of the Chilean nitrate fields are shipped.

January 31, Saturday—Coquimbo.

February 1, Sunday, to February 14, Saturday—Two weeks on shore with visits to Valparaiso, Santiago, thence by rail over the Andes to Buenos-Aires, LaPlata, and Montevideo, on the east coast.

February 14, Saturday—Returned by rail to Valparaiso.

February 29, Sunday—Through the Panama Canal.

March 2, Tuesday—Another stop at Kingston.

March 8, Monday—Arrived New York.

XIII. Our Hosts of South America

The Panama Canal has brought the Western coast of South America—Lima, Valparaiso, etc.—within fourteen days of New York City, Chicago, or New Orleans. With a return to normal shipping conditions and a growing acquaintance with our South American people, a merchant marine, by mutual agreement, will soon develop that will make us the closest neighbors. And one needs to visit these countries but once to appreciate the great worth and charm of these neighbors.

We were privileged to make our visit under exceptional circumstances. We were practically official guests; but in the busy times we had an opportunity of sitting at the home tables and getting an insight into South American family life. Everywhere we were charmed. The young men and women, the sons and daughters of our hosts, were interesting to study. In their education they are early trained in the arts, in the classics, and in the languages. The young women cultivate their music, and on a number of occasions we were thoroughly entertained by the daughters of the families playing with unusual skill the classics of Chopin, Liszt, and other composers with thorough ease and enjoyment. The young men are ambitious, and all of the young men and women have either spent a year or two in European travel, or are planning to do so. In their preparation for such travel, they have almost invariably learned English and French. And while in the past they have looked almost exclusively to Europe as their travel ground, they are now talking of America, and this spirit of friendliness and appreciation for the United States is materializing rapidly and nothing will develop their attitude more than visits by us to their countries. We must lay aside our provincial airs and cocksureness, and be willing to broaden out as they have done, learn their language as they have learned ours, and make ourselves worthy of a cosmopolitan friendship.

After visiting a few of these wonderful countries, the United States grows smaller in one's estimation, and the only way we can keep it big is to be willing to broaden out as citizens. Many representatives of the medical profession of South America will visit the United States in the next few months and years. Let us look to our laurels! Remember that they have hospitals which are equal to our best, and most of them are much more attractive. Remember that each of their principal countries has a national medical university as thoroughly equipped as are our

own, with world-trained faculties, and a seven-year curriculum as compared with our four- and five-year courses. Remember that the man you are entertaining has not been satisfied with the advantages afforded by his own country, but that he has also observed the best in France and in Germany. Remember that you are associating with a man from a country where a classical education is the pre-requisite of a gentleman. The United States now has the opportunity to enter into competition with the countries of the world as a medical-educational center. There is but one way to make good, and that is to utilize our great resources to the fullest extent and to do it with the realization that we are only one of the many nations which possess unusual resources. If it is possible, let us cultivate modesty, and the best way to do that, and certainly a pleasant way, is to visit the medical profession of South America.

GROUPS OF MEDICAL SCHOOLS CLASSIFIED ACCORDING TO NUMBER OF STATES NOT RECOGNIZING DIPLOMAS AND NUMBER OF GRADUATES OF 1919 WHO FAILED ON STATE EXAMINATIONS, 1919

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A study of the recently published reports of the various State Boards for Medical Licenture¹ disclose the fact that² of the physicians who presented themselves for examination, 4.2 per cent of the graduates of 1919, 10.5 per cent of the graduates of 1915-1919 and 30.8 per cent of the graduates of 1914 and previous years were found unprepared.

This may be and probably is the result of several factors that are constantly at work moulding medical opinion and advancing the standards of the profession to keep it in the forefront at a time in the world's history when progress is being made very fast in all lines.

Medical schools preparing aspirants for licenture before the various state boards must of necessity be ever watchful that the preparation they give will meet this advancing standard and will furnish a supply of physicians who will be of real service to their community.

Nine medical schools give only the first two years of the medical course along with literary training so that their A.B. or B.S. graduates come before the state boards as graduates of the school where their final training was secured.

After a study of the building, equipment, personnel, budget, curriculum, etc., of the other seventy-eight medical schools, all state boards accept the diploma of fifty-three of them as qualifying an applicant for examination.

The diplomas of eight schools are not accorded this recognition in one to seven states, and the di-

plomas of seventeen other schools are not recognized by eight to forty-two states. The limited scope of such a diploma is at once apparent.

None of the 1919 graduates of thirty-six of the schools granted full recognition, failed to pass any state board requirements wherever they took examinations. This must be considered a very good record as these men were eligible to any state examination held in this country and on investigation it is found that a large part of them took examinations in states where the requirements for registration are very high.

The 1919 graduates of the remaining seventeen schools of this group did not fare so well for one or more failed on some state board examinations.

By studying the accompanying chart it can be seen to which group any particular medical school belongs when judged by the requirements of the various state boards of examiners.

The rating of the Council on Medical Education takes into consideration among other things, the physical equipment, personnel and facilities for medical instruction.

It is interesting to note that all medical colleges rated Class A by the Council fall into the higher groups when classified according to the recognition granted by state boards and the success of their graduates at the examination given by the state boards.

The assortment of schools into large, medium and small on the basis of the number of graduates of 1919 examined is more or less arbitrary. As a war measure some of the large schools gave summer courses and were thus able to graduate the 1919 class early and in some instances some of the 1919 class were examined in the winter of 1918. As a result the number examined in 1919 was so small that a school falls into the group of "small sized class" while in reality it is a large school.

The object of this presentation is to furnish some light on the relative standing of the various medical schools.

As medical men we must realize that relative standing changes from year to year, but it is hoped that with these facts at hand, when asked regarding the choice of medical schools, sound advice can be given.

TUBERCULOSIS RESEARCH FELLOWSHIP

University of Minnesota

To encourage study of the means for the prevention and cure of tuberculosis, the Hennepin County-Tuberculosis Association of Minneapolis, Minnesota, announces that it has set aside a fund for the support of a tuberculosis research fellowship in the Graduate School of the University of Minnesota. The candidate for the fellowship must be a graduate of a Class A medical college. He will be expected to devote himself to research in some problem concerned with the causes, prevention, or cure of tuberculosis. No teaching or other service will be re-

1. Journal A. M. A., April 17, 1920.

2. Journal A. M. A., April 17, page 1091.

quired. The fellowship yields \$750 the first year and progressively increasing amounts to be appropriated for the second and third years as conditions warrant. Inquiries and requests for application blanks should be addressed to the dean of the graduate college, University of Minnesota, Minneapolis, Minnesota.

MARY SKIFF MEMORIAL HOSPITAL

The cornerstone of the Mary Frances Skiff Memorial, Newton, was laid April 23, by Mrs. Blanche Skiff Ross, daughter of Vernon W. Skiff, who gave the \$100,000, which together with \$50,000 community contribution made it possible to erect an \$150,000 hospital.

MEDICAL NEWS NOTES

Dr. D. S. Fairchild, Jr., was elected president of the Jane Lamb Memorial Hospital staff, Clinton, at a recent meeting of the staff; M. S. Jordan was named vice-president and Dr. Grace Schermerhorn secretary and treasurer. The following named doctors were appointed on the hospital staff at a recent meeting of physicians and board of trustees of the hospital: Dr. C. F. Bigelow, A. W. Blunt, C. W. Brown, D. S. Fairchild, Jr., Leslie Fenlon, H. J. Heusinkveld, Jr., M. S. Jordan, F. O. Kershner, B. C. Knudson, H. R. Reynolds, Grace Schermerhorn, H. R. Sugg, W. M. Walliker and E. R. Weih.

The doctors of Ida Grove and of Ida county and also visiting physicians were the guests of the Community Club of Ida Grove, Thursday night, June 10. Dinner was served at 6:30. Addresses by Dr. H. V. Scarborough, superintendent of Oakdale Sanatorium, and by Dr. Byfield of Iowa University.

The first convention of the new Iowa X-Ray Club, organized at the convention of the Iowa State Medical Association, at Des Moines, earlier in the year, will be held at Iowa City June 12. The presiding officer will be Dr. Bundy Allen of Iowa University, the state roentgenologist, who organized the club. Speakers from Omaha, Chicago and Iowa University, will provide a scholarly program. Dr. A. F. Tyler comes from Omaha and Dr. B. H. Orndorff of Chicago, formerly president of the Western Roentgenologists National Society, will also speak. The State University of Iowa speakers at the conference will be Drs. C. P. Howard, G. W. Stewart, N. G. Alcock, and Howard L. Beye.

As a direct result of the increase in doctors' fees, Des Moines police surgeons are swamped by calls from families who formerly called a physician and paid him for his service, surgeons at police headquarters said last night. An abrupt increase of from 25 to 40 per cent in the number of calls at the police station for a doctor are attributed by the surgeons to

the raise in doctors' rates. Police surgeons, maintained at a salary by the city, are not paid by their patients, the city employing them on the supposition that they will be called only in accident cases where the police are called, and in cases where families are unable to pay for medical aid. With the raise in doctors' rates, families who live in semi-prosperous homes, and who give the outward appearance of being at least comfortably well off, are calling on police surgeons for medical aid rather than pay the raised fees, doctors say. Since the increase in medical fees the three police surgeons at the local station have been on the go long beyond their regular hours, they say. Unless the heavy demand for their services abates, the number of surgeons must be increased or there must be steps taken to prevent their being summoned for miscellaneous calls.—Des Moines Register.

By the death of Decatur county's richest woman, Mrs. Almena Elizabeth Gardner, Decatur county is to receive a bequest of \$30,000 toward the erection and maintenance of a Decatur County Hospital, at Leon, on condition that a tax be levied so as to raise a total sum of \$100,000 for erecting, equipping and maintaining a county hospital, something for which there is urgent need. Mrs. Gardner also bequeathed an additional sum of \$5,000 to equip and maintain a free ward in the hospital to be known as the "Gardner ward" where persons who are unable to pay for medical or surgical attendance, will be cared for free. The will provides that in case the additional sum is not voted and levied that the \$30,000 shall become a trust fund and be held by her trustee, Fred E. Teale, until such time as it accumulates to the total sum of \$100,000.

Des Moines will have free maternity aid for its poor. This was practically assured recently when the Polk County Medical Association voted to co-operate with the Public Welfare Bureau and other civic organizations in establishing such a service. A joint committee meeting of the several bodies will be held within a week. The plan was presented to the physicians by Dr. Howard Wright, the association's representative on the Health Center Board. A number of doctors volunteered their assistance free.

Revised fee bill of the Sac County Medical Society, in effect on and after June 1, 1920: Day visits in town, \$3; night visits in town, \$4; day visits in country (good roads), per mile \$1, plus visit fee of \$3; night visits in country, per mile \$1.50, plus visit fee of \$3; day visits in country over bad roads shall be made at night rates; no visit fee outside of town, shall be less than \$4. Mileage always estimated to nearest road intersection, and for one way only. In all visits, town or country, each additional patient in household, \$1. It is expressly understood that night

rates shall begin at 7 p. m., when labor in all other vocations ceases, and day rates shall begin at 6 a. m. Office fees, when examination is involved, minimum \$2. Prescribing over phone, minimum \$1. Consultation with other physicians, minimum (mileage added in country) \$15. Obstetrics, minimum (mileage added in country) \$25; miscarriages, same fee as for obstetrics. Visits for small-pox, diphtheria, scarlet fever, and all other hazardous contagious diseases, same as night fees in town or country. Life insurance examinations in country, mileage, plus regular examination fee. Fractures—Small bones, minimum, \$5; large bones, minimum \$35. Dislocations—Small joints, minimum \$5; large joints, minimum \$25. Vaccinations, minimum \$1.50; anesthetics, minimum \$10; fraternal life insurance examinations, \$3; accident insurance reports, preliminary and final papers, \$3; civil service examinations and reports, \$3; certificate of health, \$1.50. Surgical fees, x-ray work, and fees for other and less common services than the above to be such as are customary in communities where conditions are similar to those of Sac county.

The raise in doctor's fees is being felt by the poor people of Des Moines. This is evidenced in the increased business for city doctors. As a rule city physicians are not called only in accident cases and in extreme necessity where people are unable to meet the cost of medical attention. Since the increase in fee calls have practically doubled in number.—Des Moines Tribune.

A donation of \$10,000 has been received by the St. Lukes Lutheran Hospital Association, Mason City, but the name of the man is withheld by the association. The philanthropist stated that he desired to assist in a humanitarian movement of this kind but wanted his name withheld. It was stated however, that he was in no way connected with the association. This is the largest donation that has been received from any one individual. The campaign in the outside districts is being continued but no information has been received as to the total amount of money that has been raised.

Some weeks ago most of the physicians in the city received a letter from a local manufacturing company which stated that the company would not be responsible for bills from any except their company doctor, for services rendered to their employes. A committee was appointed by the Dubuque County Medical Society to investigate, and reported that any employe has the right to choose any physician he pleases under the Iowa workingmen's compensation law. Several factories are leading their employes to believe that they are compelled to go to the company doctor. The Dubuque County Medical Society has voted to give publicity to the facts through the press, so that injured employes may be under the care of their family physician if they so desire, without any loss of compensation.

Protesting the fee of \$5 a visit now demanded by the Des Moines physicians as being prohibitive to a large per cent of the people, E. A. Lingenfelter, who is a candidate for the state legislature, in an address before a club in the capital city, declared that such a charge would force the state to provide adequate medical aid for the protection of those who could not afford it. That such a fee will deny many the medical assistance they need, is conclusive. The wage-earner who is making \$10 to \$12 a day may feel secure, but there are many salaried workers and those who are forced to live upon limited incomes who would find in such a charge an excuse for deferring the call of the physician until such time as their case would become critical.

Under the auspices of the national examining board a number of the most renowned physicians in the world were visitors May 4 at the university and dined at a dinner given in their honor recently at which President Jessup, the deans of all the colleges and members of the faculty were present. With an idea of establishing international reciprocity the physicians are visiting a number of the largest and most representative institutions in America. The group of visiting physicians follow: Sir Humphry Rolleston, London; Col. H. J. Waring, London; Dr. Norman Walker, Edinburgh; Dr. Gustav Roussey, Paris; Dr. E. E. Desmarest, Paris; Dr. David A. Strickler, Denver; Dr. W. L. Bierring, Des Moines; Dr. C. C. Griffin, Vinton; Dr. J. E. Luckey, Vinton; Dr. W. L. Allen, Davenport; Dr. D. S. Fairchild, Clinton.

On and after May 1, 1920, we the undersigned physicians of Mt. Pleasant, Iowa, hereby adopt the following fee bill and agree to strictly abide thereby. Day visit, city \$2.50; night visit, city \$3.50; day visit, country \$2.50 and mileage; night visit, country \$3.50 and mileage; country mileage, \$1 per mile; office consultation, treatments, prescriptions or surgical dressings from \$1 to \$5; consultation visit, country \$10 and mileage; obstetrics, normal \$25 city and mileage country; telephone consultation service \$1; anesthetics, minor \$5; major, \$10; minor fractures, \$10 to \$35; major fractures, \$50 and up; dislocations, minor, \$5 to \$15; major, \$15 to \$25. Extra charges to be added to the above for bad roads and over time detention. The following physicians signed the fee bill: Drs. O. A. Geeseka, W. S. Lessenger, J. W. Laird, H. B. Gillis, G. E. Smith, L. B. Allen, J. E. Payne, J. J. Pitcher, and W. A. Sternberg.

C. D. Hellen: The family physician has taken his place in the ranks of the profiteers. With a boost in price to \$5 for a call they are now able to make an unreasonable amount on one of the absolutely indispensable necessities. A doctor can make over twenty calls before office hours and a great many of them do that very thing. That means they can make over \$100 in the hours before their office opens. Certainly this is profiteering.

The state hospital at Iowa City which operates under the Perkins law and cares for children of the poor, is in need of more money for daily expenses, according to Walter Ramsay, secretary of state. Mr. Ramsay upon his return from Iowa City recently recommended to the executive council that they allow the hospital \$3.39 per day per patient. The hospital has been receiving \$2.79 per day per patient, and a deficit of \$38,000 has resulted. The executive council will probably increase allowance per patient.

It's going to cost one hundred per cent more to be sick in Des Moines beginning May 1 than it did before—that is if the afflicted persons summon a physician. Des Moines medics meeting with the Polk Medical Association voted to increase call fees from \$2.50 to \$5, effective May 1. The increase was the only alternative for the establishment of a home for indigent physicians, said Dr. T. F. Duhigg, secretary of the association. Life insurance examinations will also be affected by the new rates.—Oskaloosa Herald.

A Methodist Hospital to cost not less than \$500,000 will be erected in Sioux City as soon as the necessary funds have been raised, according to an announcement made Saturday. Decision to build was reached by the hospital commission of the Northwest Iowa Conference at Fort Dodge, Wednesday of last week. The vote on the project was unanimous. The recent transfer of St. John's Lutheran Hospital to the Methodists, was only an incident in connection with the hospital program, it is said. When the St. John's building has been thoroughly renovated and refurnished with modern hospital equipment, it will be re-opened and used as temporary quarters until the new building is finished. The old structure will then be sold and merged with the larger institution. The St. John's Hospital and the 280-acre farm north of Stone Park have been deeded by Dr. Williams Jepson to corporations duly formed, and are being held in trust for the Northwest Iowa Conference of the Methodist Episcopal Church. In connection with the proposed \$500,000 hospital it was announced that request has been made of the Central Interchurch treasury, New York City, for \$100,000 of the receipts sent the treasury this year. At the same time a request was made for \$260,000, to cover a five-year period for the hospital and orphan interests of the Northwest Iowa Conference. The requests were approved by the general budget committee of New York City. This places Sioux City on the list of beneficiaries. In the financial drive from April 25 to May 2, Methodist churches are asked, when giving, to "major" on hospital needs. Any gifts made by friends in sympathy with hospitals and the proposed hospital plan, and so designated, will be similarly applied.—Sioux City Journal.

Fee of \$5 a visit now demanded by Des Moines doctors is prohibitive to a large per cent of the people, E. A. Lingenfelter told the members of the

Lion's Club this noon. The advanced fee makes it impossible for the small wage earning man to provide the necessary medical care for his child, he said. If this fee continues it should become the duty of the state to provide adequate medical care for sick children, according to Lingenfelter, who is a candidate for member of legislature. The State of Iowa is spending large sums of money to prevent disease from invading its live stock, maintaining a state veterinary with a large corps of assistants for that purpose. Surely the state is called upon to protect the lives of its citizens with as much zealous care as it exercises towards its herds of valuable live stock.—Iris.

The south side wants a district health clinic to combat the increased price of doctor's services. A. W. Bonacci, president of the South Des Moines Improvement League, urged the city council recently to assign a city physician to the south side. The doctor's fees are prohibitive, and we fear that there will be many children's lives lost unless the mothers have medical assistance from the city, Mr. Bonacci told the council. The council took the request under consideration.

Intern appointments for Iowa University graduates: Don B. Harding, University Hospital, Iowa City; Bonnybel Artis, Children's Hospital, Iowa City; A. W. Bryan, Iowa University Hospital, Iowa City; E. J. Campbell, General Public Hospital, St. John's, New Brunswick; C. H. Cords, Mt. Sinai Hospital, Cleveland, Ohio; W. H. Davis, Harper Hospital, Detroit, Michigan; R. S. Hiatt, City and County Hospital, San Francisco, California; Earl E. Morgan, St. Joseph's Mercy Hospital, Sioux City; Walter W. Kitson, Baptist Memorial Hospital, Memphis, Tennessee. Other appointees, their home towns, and the institutions and cities to which they will go are as follows: Edwin G. Bannick, Wilton, Mercy Hospital, Davenport; Z. R. Ashenbrenner, Pella, Harper Hospital, Detroit, Michigan; Howard Barlow, Mason City, Rochester General Hospital, Rochester, New York; Fred Bendixen, Elmore City, Asbury Hospital, Minneapolis, Minnesota; Carl G. Bréthauer, Denison, Iowa University Hospital, Iowa City; H. W. Dahl, Des Moines, Iowa University Hospital, Iowa City; H. T. Dunn, Iowa University Hospital, Iowa City; Allen G. Felter, Ollie, Iowa Methodist Hospital, Des Moines; M. R. French, Marcus, Iowa University Hospital, Iowa City; Fred Fuerste, Guttenberg, Milwaukee Hospital, Milwaukee, Wisconsin; R. M. Gillett, Oskaloosa, Memphis General Hospital, Memphis, Tennessee; Verne C. Graeber, Stockport, Iowa University Hospital, Iowa City; Graham, Robert M., Missouri Valley, U. S. Immigration Hospital, Ellis Island, New York City; R. T. Paige, La Porte City, St. Luke's Hospital, Cedar Rapids; Frederick C. Greaves, Villisca, Northern Pacific Hospital, Brainard, Minnesota; John C. Parsons, Geneseo, Illinois, City and County Hospital, San Francisco; C. C. Jones, Des Moines, Univer-

sity Hospital, Iowa City; Joe M. Kerwik, Emmetsburg, Harpers Hospital, Detroit, Michigan; Harold R. Peasley, Indianola, Mercy Hospital, Des Moines; Frank R. Peterson, Laurens, Iowa University Hospital, Iowa City; E. E. Shaw, Indianola, Lying-in-Hospital, New York, New York.

The \$5 house call charge imposed by Des Moines physicians is exorbitant," says Horace Hollingsworth, secretary, Des Moines Associated Charities. "Ninety per cent of the people in Des Moines can afford the fee," says Dr. Thomas Duhigg, president, Polk County Medical Association. In a communication answering Mr. Hollingsworth's criticism of the recent raise in fee, Dr. Duhigg says that it is unjust to ask physicians to maintain their former standard of fees, and quotes advances in living cost to prove that doctors must have more money. He assures Mr. Hollingsworth, however, that charity cases, as in the past, will be attended without charge. He also states that the workmen's compensation law, which allows but \$100 for a month's care for a sick or injured person, must be revised, as the amount allowed is insufficient for care of the patient.

A new hospital to cost \$300,000 will be built in Council Bluffs alongside the present Jennie Edmundson Hospital during the next year. This building will be the gift of J. D. Edmundson, the donor of the present structure, and will be about twice as large.

Adj.-Gen. Lasher has issued an order placing Colonel D. S. Fairchild, medical department, Iowa National Guard, (retired), on duty as acting chief surgeon of Iowa, and he is actively at work organizing the medical department of the board.

After May 1 it costs more to be ill in Des Moines. The Polk County Medical Society, through its secretary, Dr. Thomas F. Duhigg announces the fee for doctors' visits is \$5 each. The old rate applies to insurance examinations. The increase was the only alternative to the establishment of a "home for indigent physicians," Dr. Duhigg said.

What has become of the Sherman antitrust and anticompetition law when an organization or combination of professional men can brazenly announce that they have decided to raise prices to the point of a prohibited public necessity? What is the duty of the grand jury of the United States District Court? What is the matter with the public press? A few months ago a doctor who has offices in the same building with the writer told me he had made twenty-two calls that morning before coming to his office and another in the same elevator said he had made eighteen. Will the people who are refusing to vote the poor, hard working street car men \$5.60 for eight long hours' work sit quietly by and stand for the "family physician" making \$90 to \$110 off from them before office hours? We shall see.—C. D. Hellen.

Minutes of the Iowa State Medical Society Sixty-Ninth Annual Session, Des Moines May 12-13-14, 1920

Wednesday, May 12, Morning

The Sixty-ninth Annual Session of the Iowa State Medical Society was held in Fort Des Moines Hotel, Des Moines, May 12, 13 and 14, 1920.

The Society was called to order at 8:45 o'clock by the President, Dr. William L. Allen, Davenport. Following invocation by Rt. Rev. Harry S. Longley, D.D., Des Moines, Hon. H. H. Barton, Mayor, on behalf of the city extended to the profession an address of welcome. Dr. Channing G. Smith, Granger, President Polk County Medical Society, then gave an address of welcome for the profession, response being made by Dr. Channing E. Dakin, Mason City, on behalf of the visiting members.

Dr. Arthur Steindler, Iowa City, read a paper on "Surgical Tuberculosis: Indication for Operative or Conservative Procedures." Discussed by Drs. Oliver J. Fay, Des Moines; J. W. Cokenower, Des Moines, and William Jepson, Sioux City. Dr. Steindler closing the discussion.

Dr. Samuel Bailey, Mt. Ayr: Mr. President, Ladies and Gentlemen: From time immemorial it has been the custom of all organized bodies or associations to have some distinct mark representing order, which, it has been said, is heaven's first law. This emblem of honor is conferred only upon those well worthy to receive it. I have been requested by the Society to present to our genial and lovable President, Dr. Allen, this gavel. Dr. Allen, I hope you will use it with your usual good judgment, kindly but firmly.

In a brief address, the President expressed his thanks to the Society for the memento.

Dr. Edward M. Meis, Sioux City, read a paper on "Lung Abscess." Discussed by Drs. Daniel J. Glomset, Des Moines; Robert Q. Rowse, Sioux City, and Vernon L. Treynor, Council Bluffs; Dr. Meis closing the discussion.

Dr. James S. Gaumer, Fairfield, read a paper on "Sequelae of Infectious Diseases of Childhood." Discussed by Drs. Vernon L. Treynor; Frank M. Fuller, Keokuk; Frederick H. Lamb, Davenport; Frederick G. Murray, Cedar Rapids; E. T. Edgerly, Ottumwa; C. G. Field, Fort Dodge; Earl L. Vernon, Tama; Fred Moore, Des Moines, and Daniel J. Glomset, Des Moines; Dr. Gaumer closing the discussion.

Dr. Alanson M. Pond, Dubuque, read a paper on "Surgery of the Central Nervous System." Discussed by Drs. Amos G. Shellito, Independence; D. S. Fairchild, Clinton; C. E. Dakin, Mason City, and A. A. Crabbe, Traer; the essayist closing the discussion.

Dr. Frank M. Fuller, Keokuk, read a paper on "Encephalitis Lethargica: With Report of Cases." Discussed by Drs. Daniel J. Glomset; D. C. Brockman, Ottumwa; Granville N. Ryan, Des Moines;

Frederick H. Lamb, and G. H. Hill, Des Moines; Dr. Fuller closing the discussion.

Wednesday, May 12, Afternoon

The meeting was called to order at 1:15 o'clock by the President.

Dr. Francis A. Ely, Des Moines, read a paper on "Cerebral Type of Arteriosclerosis." Discussed by Dr. J. F. Herrick, Ottumwa, and Dr. Ely in closing.

The following papers were read as a symposium on Surgical Diagnosis:

"Case History," Orry C. Morrison, Carroll. Paper discussed by Dr. Wm. A. Rohlf, Waverly.

"Physical Examination," Dr. John C. Hancock, Dubuque. Paper discussed by Dr. C. F. Wahrer, Fort Madison.

"X-ray Examination," Dr. Thomas A. Burcham, Des Moines. Paper discussed by Drs. Arthur W. Erskine, Cedar Rapids; J. W. Rowntree, Waterloo, and John C. Hancock, Dubuque; Dr. Burcham closing the discussion.

"Laboratory Procedures," Dr. Frederick H. Lamb, Davenport. Paper discussed by Drs. J. F. Herrick, Henry Albert, Daniel J. Glomset, Frank M. Fuller, and Orry C. Morrison.

"Summary of Symposium: The Final Correlation," Dr. Charles S. James, Chairman of Section on Surgery, Centerville.

Thursday, May 13, Morning

The meeting was called to order at 9:30 o'clock by Vice-President Dr. Granville N. Ryan.

The Oration in Surgery was given by Dr. David S. Fairchild, Jr., Clinton.

Dr. Charles E. Ruth, Des Moines, gave a talk on "The Use of the Thomas Splint and Balkan Frame," with practical demonstration. Discussed by Drs. J. F. Herrick, William Jepson, W. B. Willey, and D. S. Fairchild; Dr. Ruth closing the discussion.

The House of Delegates having adjourned, President Allen resumed the Chair.

Papers comprising a symposium on the Cardiovascular System were read, as follows:

"Physiology of the Heart Beat," Dr. Edward D. Allen, Hampton;

"The Usual Clinical Symptomatology of Heart Disease," Dr. Meredith Mallory, Des Moines;

"Therapy of Cardiovascular Disease," Dr. Vernon L. Treynor, Council Bluffs.

The following telegram from Dr. Austin C. Davis, Iowa City, who was to have read a paper on "Graphic Methods in Cardiognosis," was read:

"Detroit, Mich., May 11, 1920.

"Dr. Wm. E. Sanders,
Des Moines.

Regret inability to appear on program on account of desperate illness of brother.

Dr. A. C. Davis."

Discussion of the papers of the symposium was opened by Dr. Campbell P. Howard, Iowa City, and continued by Drs. Walter L. Bierring, Daniel J.

Glomset, D. S. Fairchild, Frank M. Fuller, Walter E. Scott, C. F. Wahrer, and Meredith Mallory.

Thursday, May 13, Afternoon

The meeting was called to order at 2 o'clock by the President.

Address of the Chairman of the Section on Medicine was given by Dr. William E. Sanders, Des Moines, his subject being, "The Making of a Diagnosis."

Referring to the Address on Medicine which was to have been given by Dr. Robert H. Babcock of Chicago, the President said:

"Since the days of Homer I know of no more wonderful instance of the development of the human mind under tremendous handicap than in the case of Dr. Babcock. This has been done largely through the cooperation of his beautiful wife. A few weeks ago the committee received word of Mrs. Babcock's death, and the Doctor wrote us that he would try and be present although he would be unable to say very much. Yesterday we received this telegram: 'Dr. Babcock ill with severe sinus infection, cannot attend meeting. Sends regrets and best wishes.

Dr. G. T. Jordan.'"

Dr. C. A. Boice, Washington, introduced the following resolution and moved that the Secretary be instructed to send same as a telegram to Dr. Babcock:

"The Iowa State Medical Society, in sixty-ninth annual session assembled at Des Moines May 13, 1920, desires to extend to Dr. Robert H. Babcock its profound sympathy for him in his recent bereavement, and trust that he, himself, will soon be restored to his former full health and strength."

Motion seconded by Dr. C. F. Wahrer. By unanimous vote the resolution was adopted.

Mr. Charles M. Dutcher, Iowa City, read a paper on "The Relationship of Fractures to Malpractice Suits." Discussed by Drs. D. S. Fairchild, A. L. Judd, Kanawha; C. A. Boice, and C. F. Wahrer; Mr. Dutcher closing the discussion.

Dr. Bundy Allen, Iowa City, read a paper on "Roentgenology in the Diagnosis and Management of Fractures." Discussed by Drs. Herbert M. Decker, Davenport, and J. W. Rowntree.

Dr. Elmer E. Bamford, Centerville, read a paper on "Surgical Uses of Radium." Discussed by Drs. Jay F. Auner, Des Moines, and J. W. Rowntree, Waterloo; Dr. Bamford closing the discussion.

Dr. Herbert M. Decker, Davenport, read a paper on "Roentgenology in Pulmonary Diseases." Discussed by Drs. J. F. Herrick, Daniel J. Glomset and Granville N. Ryan; the essayist closing the discussion.

Thursday, May 13, Evening

In calling the meeting to order, Chairman Ryan stated that in his opinion the high standing of the profession of the state is largely due to the most excellent advice of and guidance by the guests of the

evening, the ex-presidents, and suggested that it would therefore be most fitting to give them one good ovation by rising. The suggestion received unanimous response.

The President then read his address.

It was moved by Dr. J. W. Kime, Fort Dodge, that a committee of three be appointed to consider and report upon the President's address. Motion seconded by Dr. Tom B. Throckmorton. Carried. The Chairman appointed Drs. T. E. Powers, Clarinda; D. H. Bowen, Waukon, and J. W. Kime, Ft. Dodge, to act as such committee.

Regarding the presentation of gavels to those ex-presidents who had not previously received such memento, Dr. Vernon L. Treynor said:

"It has been my good fortune to be able to attend every annual meeting of this Society for over a quarter of a century. The Society has been fortunate in having many able men as presidents, and it has been peculiarly fortunate in electing men who have not lost their enthusiasm after they have ceased to be president. In looking over the list of ex-presidents, now living, I find the names of only a few who have failed to continue actively in the work of the Society after retiring from the presidency. I think this is rather an unusual experience and certainly these men are deserving of recognition for this. For a number of years it was not the custom to present gavels to our presidents because this Society was poor. I recall the time when it was quite difficult for us to secure sufficient funds to maintain our rather humble organization, but today we have grown in membership and have accumulated a certain amount of wealth, and therefore we are in position to show a little recognition to those who should have received this recognition long since. In the past few years it has been the custom to present the presiding officer with a gavel, and the following named ex-presidents have already received gavels: Dr. M. N. Voldeng, Dr. V. L. Treynor, Dr. L. W. Dean, Dr. H. C. Eschbach, Dr. Wm. B. Small, Dr. J. F. Herrick, Dr. J. N. Warren, Dr. Max E. Witte, and Dr. W. L. Allen.

"There are fourteen other living ex-presidents who have never had that honor bestowed upon them, and it is our pleasure to perform that ceremony tonight.

"I wish to call attention to a few men in particular who are not present tonight. The first name on the list is Dr. A. G. Field of Des Moines, who was President of the Society in 1872, forty-eight years ago. Dr. Field is ninety years of age, and is, I understand, bedridden. Dr. Edward Hornibrook is not here because not in very robust health. Dr. Henry B. Young of Burlington, Dr. Robert E. Conniff of Sioux City, and Dr. James R. Guthrie of Dubuque could not be here. The Secretary has arranged to send the gavels to these gentlemen."

On behalf of the Society, Dr. Treynor then presented gavels to the following named ex-presidents:

Dr. Cicero M. Hobby, Iowa City, 1893.

Dr. Lewis Schooler, Des Moines, 1894.

Dr. David S. Fairchild, Clinton, 1896.

Dr. James Taggart Priestley, Des Moines, 1903.

Dr. David C. Brockman, Ottumwa, 1905.

Dr. William Jepson, Sioux City, 1906.

Dr. Walter L. Bierring, Des Moines, 1908.

Dr. Charles Frederick Wahrer, Fort Madison, 1909.

Dr. George E. Crawford, Cedar Rapids, 1910.

Dr. Lewis Schooler introduced and moved the adoption of the following resolution:

Whereas, Dr. A. G. Field of this city, who was for many years Secretary of the Iowa State Medical Society in its early days, and was President in 1872, is now and has been for the last four weeks confined to his bed by illness; therefore be it

Resolved, That we, the members of this Society, tender to Dr. Field our sincere sympathy in his affliction and express hope for his speedy recovery.

As an amendment to the foregoing resolution the secretary suggested that the names of Dr. Hornibrook and Dr. Conniff be included in the resolution, as they are sick and unable to be present. Dr. Schooler accepted the amendment.

The motion as amended was seconded and unanimously carried by rising vote.

Friday, May 14, Morning

The meeting was called to order at 9:30 o'clock by Vice-President Ryan.

Dr. Donald Macrae, Jr., Council Bluffs, gave an address on "Surgery of the Chest: Observations on the Wounded in France." No discussion.

Dr. Francis R. Holbrook, Des Moines, gave a talk on "What the War has Taught us in the Treatment of Fractures." Discussed by Dr. Earl D. McClean, Des Moines, and Dr. Holbrook in closing.

Dr. T. E. Powers, Chairman, presented report of Committee on the President's Address, as follows:

REPORT OF COMMITTEE ON PRESIDENT'S ADDRESS

Mr. Chairman and Members of the Iowa State Medical Society:

We, your Committee on President Allen's Address, beg leave to submit the following report:

We desire to heartily commend the very excellent and erudite Address of our worthy President. He has somewhat departed from the well worn paths usually followed, and called attention to very vital and significant matters which have been to a great extent overlooked by the proper governmental authorities as well as by the profession.

If the suggestions made are followed to their legitimate conclusions, results may be obtained which will be of immeasurable benefit to mankind, not only to the present generation but to generations yet unborn. We call especial attention to that portion of the Address touching on the needs of the Medical Department of the State University for better facilities for teaching the important art of obstetrics, often neglected in many colleges, and hope that some steps may be taken to correct that defect. The great war has left civilization confused and

torn. The United States, of all nations, is in a position to lead the way to better things. Are we ready for the responsibility? The physical, moral and mental status of a nation depends to a large extent upon its motherhood and womanhood. Our President has pointed to an almost fatal weakness in Society, and suggested a remedy.

We recommend the publication of this Address in the usual way and also that steps be taken to place it in the hands of the Women's Clubs and Societies of the State.

T. E. Powers, Clarinda,
J. W. Kime, Fort Dodge,
D. H. Bowen, Waukon.

It was moved by Dr. Thomas F. Duhigg that the report be referred to the Committee on Health and Public Instruction. Motion seconded. Carried.

The House of Delegates having adjourned, President Allen resumed the Chair, presiding until the close of the session.

Dr. Charles H. Mayo, Rochester, gave the Address on Surgery, his subject being: "The Thyroid and its Diseases."

Upon motion by Dr. Paul E. Gardner a rising vote of thanks was extended to Dr. Mayo for his magnificent address.

Dr. Clarence E. Van Epps, Iowa City, read a paper on "The Mentally Defective Problem." Discussed by Drs. Max E. Witte, Clarinda, and Charles H. Mayo; Dr. Van Epps closing the discussion.

Report of the transactions of the House of Delegates was then presented by the Secretary. Upon motion, unanimously carried, the report was accepted.

SUMMARY OF PROCEEDINGS OF THE HOUSE OF DELEGATES

The first meeting was held May 12 and was called to order at 3:45 p. m. Roll call showed the presence of 14 officers and 51 delegates. The reports of the Secretary, Treasurer, Council and Trustees were presented and proper disposition of them were made. The work of the Medico-legal Committee was approved and endorsed and a vote of thanks tendered for the services so ably rendered. Following the report of the Committee on Public Policy and Legislation, an invitation was extended to Mr. O. K. Patton of the Code Commission to address the House on the "Proposed Medical Practice Act." The House of Delegates then adjourned, after which the delegates of their respective congressional districts met in caucuses and selected members for the Nominating Committee.

The Thursday morning meeting convened at 8:20 a. m., there being officers and delegates present to the number of 45. Following the introduction by Dr. J. W. Cokenower, Mr. O. K. Patton in a clear and concise manner brought out the salient points in connection with the revising and rewriting of the Iowa laws relative to public health and the practice of medicine. A rising vote of thanks was tendered

Mr. Patton following the conclusion of his remarks. Following a resolution presented by Dr. Duhigg, the President appointed a committee of three—Drs. Duhigg, Saunders and Schrupp to prepare and bring before the House a resolution for a standard charge for medical and surgical skill.

The Friday morning meeting was called to order by the President at 8:20 a. m. Roll call showed the presence of officers and members to the number of 48. The minutes of the previous meetings were read and approved. The report of the Nominating Committee being the first order of business, the report presented by Dr. C. J. Saunders, chairman, following which officers and committee men were elected for the ensuing year. (See election of officers—transactions of House of Delegates—page 249.)

Des Moines was selected as the next meeting place—Seventieth Annual Session—May 11, 12 and 13, 1921.

The registration of the session shows the presence of 626 physicians, visiting ladies and guests 79, a total of 705.

The retiring President said: "I want to thank you all for your kindness and courtesy in overlooking my shortcomings and being so very attentive and sympathetic. Inasmuch as we cannot have three presidents, it is my duty as well as pleasure at this time to appoint Dr. Gardner and Dr. Witte to escort Dr. Macrae to the Chair, and also Dr. Taylor and Dr. Ross to escort Dr. Pond, your President, elect, to the platform.

"I am sure we are all envious now of the new incumbent. We could not all go to the war; some of us did not have enough red blood, some of us were too old, some of us were crippled, some of us had a sick wife or sick child, some only had a sick uncle or a sick aunt, but there were reasons. And I am sure as time goes by we will envy this man because it will not be so very many years before a "Horatio at the bridge" will be modernized and we will talk about the hero of the Marne and of Chateau Thierry. And one of the heroes of the Marne is here to take my place and I am sure he is going to discharge his duties well."

President Macrae: "Members of the Society: I am not going to tire you with any talk, but I just want to say that I thank you for this honor. I will do my best and try to equal the work of my predecessor as evidenced by the record breaking meeting about to close. It is pretty hard to beat. We will do our best, but expect to have the support and help of all of you in bringing about the result that we desire. I thank you again from the bottom of my heart."

Dr. Charles B. Taylor, Ottumwa, gave the Oration in Medicine, his subject being: "Organization or Association of Physicians as Against Individualism or Socialization."

Upon motion, the meeting adjourned.

Tom B. Throckmorton,
Secretary.

Transactions of the House of Delegates Iowa State Medical Society

Sixty-Ninth Annual Session, Des Moines,
May 12, 13, 14, 1920

The House of Delegates held its first meeting in Room 322, Fort Des Moines Hotel, Des Moines, and was called to order at 3:45 p. m. by the President, Dr. William L. Allen.

Roll call showed the presence of 14 officers, and 51 delegates, a total of 65.

A quorum being present, the President announced that the House was ready for the transaction of business.

REPORT OF THE SECRETARY

The Secretary, Dr. Tom B. Throckmorton, read his annual report, which, upon motion, duly seconded and carried, was accepted and referred to the Finance Committee.

The report follows:

To the Members of the House of Delegates of the
Iowa State Medical Society:

The following report for the year 1919-1920 is respectfully submitted:

During the past year the work connected with the Secretary's office has largely, if not entirely, assumed the routine experienced prior to the World War and the manifold duties the same brought about as one of its sequences. While many changes have taken place, here and there, as regards location, most of the members who were engaged in war work are again at home, having laid aside their military work for the less arduous duties connected with civil affairs. Whenever possible, this office has endeavored to be of such assistance, as within its power, in helping those physicians who had been in military service in the resumption of their civil practice.

Membership

The membership of the Society compares very favorably with that of former years. In 1916, there was a total of 2,200 members; in 1917, 2,253 members; in 1918, 2,185 members; and the past year 2,205 members. To date, dues have been received from 2100 members, showing an increase of 153 in membership for the corresponding period of time last year.

It is not unreasonable to assume, therefore, that the increase thus far experienced bids fair to give the Society an enrollment equalling or exceeding the total membership of 2,253 for the year 1917, which was the largest total aggregate in membership for any one year since the present incumbent assumed his duties as Secretary.

Organization

There is no good reason why the membership of this Society should not be increased even to a greater degree than heretofore attained. The total number of physicians in the state according to the directory of the American Medical Association is

4,004. While this number, of course, includes many who are no longer actively engaged in medical pursuits, and consequently care little or nothing for organized medicine, yet a goodly number of those who are without the realms of this Society are not only eligible to membership but would create a valuable asset, not only to themselves but to medicine in general, by joining with us in this great and good work. As conditions now exist, out of a possible four thousand only two and three-quarter thousands have availed themselves of the opportunities afforded by organized medicine. This percentage of eligible members should be rapidly decreased, and the number of active members correspondingly increased.

Ways and Means

To bring this about, more cooperation on the part of the officers of the various Component County Medical Societies must be had. For instance, in one county alone a total membership of ten is reported, while the number of eligible physicians is given as fifteen. Further instances of a similar character could be cited as evidence of conditions existing in many other counties, and as such are silent witnesses of the fact that missionary work, of the home variety, would undoubtedly bring about a goodly increase in membership not only in the various County Societies but in our own Society as well. It would be superfluous to more than state, however, that this office is ever ready to lend such assistance to any who may see fit to call on it for help in recruiting the ranks of organized medicine.

Upon the whole the services rendered by the secretaries of the various Component County Medical Societies, as well as by the Council and Trustees, has indeed been most commendable and for the help, aid and assistance so cheerfully rendered, the secretarial work has gone on during the past year in a manner both pleasing and gratifying, and to those who have helped make this year's work a success, I gratefully acknowledge my thanks.

Other matters in which the office of Secretary has been active, are reported to the House of Delegates from other sources.

FINANCIAL STATEMENT

Monies received and disposition of the amount for the year May 1, 1919 to April 30, 1920.

Receipts	
Dues, 1917	\$ 5.00
Dues, 1918	30.00
Dues, 1919	1,823.00
Dues, 1920	10,154.00
Advertising	\$ 5,870.64
Reprints	489.38
Subscriptions—non-members	37.50
Sales	11.31
Honorarium from Coopera- tive Medical Advertising Bu- reau	89.55
Total.....	\$18,510.38

Disbursements

Exchange40
Commission to Advertising Bureau and Discount.....	\$ 774.04
Dr. Thos. F. Duhigg, Treas.....	17,735.94
Total.....	\$18,510.38

The following orders have been issued during the year:

No.	Amount
945 Bankers Cabinet & Supply Co., Stationery, Sec'y office.....	\$ 16.65
946 Pilgrim Specialty Co., Malden, Mass. Badges 1919 Session.....	36.16
947 Ristrim, Geren Art Co., Des Moines, drawings program 1919 Session.....	6.75
948 Dr. Max E. Witte, Clarinda, expense as President 1918-'19.....	17.21
949 Central Engraving Co., half tones and etchings, Journal and Program.....	31.90
950 Dr. Thos. F. Duhigg, Treas., salary and expense	153.46
951 Dr. Lewis Schooler, expense Medico-legal Committee.....	25.00
952 Dr. J. W. Cokenower, Chairman Legislative and Public Policy Committee, circular letters, postage, telegrams, etc.....	54.00
953 McNamara & Kenworthy, Des Moines, book case and supplies, Sec'y office.....	23.40
954 Dr. Lewis Schooler, Medico-legal Com., prtg. 2275 circular letters, envelopes, addressing, folding and postage	53.05
955 J. H. Welch Prtg. Co., April Journal and reprints, programs 1919.....	437.80
956 Dr. J. W. Cokenower, Chairman Trustees, expense meeting May 6.....	5.00
957 Void	
958 Dr. Tom B. Throckmorton, Secretary, salary, office assistant salary, April mailing Journal, postage, telegrams, salary, 2-15 to 5-15.....	209.80
959 Dr. Tom B. Throckmorton, Sec'y, rent, mailing Journal, postage, office telephone, May	38.73
960 Iowa Press Clipping Bureau-News Service, April and May.....	10.00
961 Plumb Jewelry Co., gavel for President	8.50
962 J. H. Welch Prtg. Co., May Journal, reprints, stationery Editor.....	379.75
963 Miss Adelaide Folsom, Ripon, Wisconsin, reporting 1919 Session.....	150.00
964 Central Engraving Co., half tones and etchings, Journal.....	7.56
965 Dr. D. S. Fairchild, Editor, salary, April, May, June, stenographer salary, April, May, June and postage.....	406.17
966 Iowa Press Clipping Bureau, news service, June.....	5.00
967 J. H. Welch Prtg. Co., June Journals and reprints	336.00

No.	Amount
968 Dr. Tom B. Throckmorton, Sec'y office, ass't salary, May, June, July, rent, mailing Journals, postage, office phone, etc.	337.20
969 McNamara & Kenworthy, supplies 1919 Session	5.10
970 C. L. Dahlberg Co., Des Moines, prtg. 300 letters to delinquent members.....	2.30
971 J. H. Welch Prtg. Co., July Journals.....	410.95
972 J. H. Welch Prtg. Co., August Journals and reprints.....	370.60
973 Dutcher & Davis, Iowa City, medico-legal bill, 2nd quarter.....	297.31
974 Upham Bros., Des Moines, bonds, Sec'y and Trcas. State Society.....	50.00
975 D. E. Moon Prtg. Co., envelopes for Dr. Duhigg, Treas.....	5.65
976 Dr. W. W. Pearson, Chairman State Committee, Nat'l Defense, printing, filing cases, stenographer and postage.....	246.47
977 Iowa Press Clipping Bureau, news service, July.....	5.00
978 Ida J. Brinton, Des Moines, reporting House of Delegates.....	15.00
979 Dr. H. G. Langworthy, Dubuque, Expense Committee on Conserv., Vision and Hearing.....	35.25
980 Dr. B. L. Eiker, Leon, traveling Ex. meeting Co. on Legislation.....	5.62
981 Dr. W. B. Small, Waterloo, expense attending Trustees' meeting, August 27	7.40
982 Dr. J. W. Cokenower, chairman trustee expense meeting, August 27, and stamps	6.00
983 Bankers Prtg. Co., Des Moines, stationery for Council, stationery for Sec'y office, reprints, etc.....	33.35
984 Dr. O. J. Fay, Chairman Arrangement Committee 1919 Session, deficit in expense of Session.....	157.48
985 Dr. Tom B. Throckmorton, Sec'y rent, postage, mailing Journal, etc., salary 5-15 to 8-15, office ass't. salary, Aug., etc.	227.70
986 Central Engraving Co., Des Moines, half tones, September issue.....	9.00
987 Ida J. Brinton, office ass't., increase in salary, three months.....	45.00
988 J. H. Welch Prtg. Co., Sept. Journal and reprints.....	366.50
989 Iowa Press Clipping Bureau, August service	5.00
990 Central Engraving Co., engravings, October issue.....	16.97
991 Dr. D. S. Fairchild, Editor salary, July, August, September and salary stenographer, three months, stamps.....	407.00
992 Dr. Tom B. Throckmorton, Secretary, salary, office assistant September.....	100.00
993 Central Engraving Co., half tones November issue Journal.....	9.00
994 Dr. Tom B. Throckmorton, Sec'y salary office, assistant, October.....	100.00

No.	Amount	No.	Amount
995	Will H. Zaiser Co., index tray, cards, Sec'y office..... 2.40	1020	Central Engraving Co., engraving Mch. issue 4.64
996	American Medical Association, 1920 membership cards..... 10.35	1021	J. H. Welch Prtg. Co., January Journals, 1920 wrappers; reprints..... 561.70
997	Koch Bros., 1920 record book..... 2.60	1022	Dutcher & Davis, attorneys, medico-legal, Oct., Nov., Dec..... 541.47
998	Dahlberg Duplicating Co., 110 letters to County Secretaries..... 3.33	1023	Lane & Waterman, attorneys, Davenport, medico-legal 25.00
999	Iowa Press Clipping Bureau, Sept. and October News service..... 10.00	1024	Mrs. Edwin Burchett, Seymour, Iowa, fees paid attorney, medico-legal case, Putnam County, Missouri..... 250.00
1000	Miss Luella Nash, Adrian, Mich., reporting 1919 Session, Eye, Ear, Nose, Throat Section 24.16	1025	Dr. Tom B. Throckmorton, Sec'y, salary 11-15 to 2-15, mailing Journal, Dec., Jan., Feb., rent 3 months, office phone, 3 mos. postage, 3 mos., etc..... 230.70
1001	Hiatt Ribbon Co., Des Moines, 1 dozen coupons, ribbon typewriter..... 9.00	1026	Dr. T. E. Powers, Clarinda, expense attending Trustees meeting February 24 14.45
1002	Bankers Prtg. Co., 1920 receipts, membership card envelopes, stationery for Journal and State Society..... 45.45	1027	Dr. W. B. Small, Waterloo, expense attending Trustees meeting February 24.... 9.60
1003	Dutcher & Davis, attorneys, Iowa City bill for third quarter..... 410.15	1028	Dr. J. W. Cokenower, Chairman Trustees, expense meeting Trustees meeting February 24 5.50
1004	J. H. Welch Prtg. Co., Oct. and Nov. Journal and reprints, \$779.35; Legislative Committee, circular letters and postage, \$43.89..... 823.24	1029	Dr. Tom B. Throckmorton, salary, office ass't., February..... 100.00
1005	Dr. Tom B. Throckmorton, Sec'y, salary, 8-15 to 11-15 (\$100); rent, October and November office phone, postage, mailing Journals, September, October, November, city delivery, postage, etc.... 210.94	1030	J. H. Welch Prtg. Co., printing February Journal, reprints, binding 2 vols. 1919 Journals for files..... 445.70
1006	Dr. J. W. Cokenower, Chairman Trustees, expense Trustees meeting November 20, 1919..... 3.00	1031	Dahlberg Prtg. Co., printing circular letters, Legislative Committee and postage 18.79
1007	Dr. W. B. Small, Waterloo, expense attending November meeting trustees..... 9.60	1032	Dr. Tom B. Throckmorton, Sec'y salary, office ass't for March..... 100.00
1008	Dr. Tom B. Throckmorton, Secretary office assistant, November..... 100.00	1033	Central Engraving Co., half tones, April issue 35.55
1009	Central Engraving Co., engraving December issue..... 4.64	1034	J. H. Welch Prtg. Co., printing March Journals 423.50
1010	Central Engraving Co., engravings January and March issues..... 10.94	1035	Dr. D. S. Fairchild, Editor, salary, Jan., Feb., March., salary stenographer, 3 mos., Journal, postage, medico-legal postage 407.99
1011	Dr. D. S. Fairchild, Editor, salary, October, November, December, salary, stenographer, October, November, December, postage Journal and medico-legal 407.75	1036	Iowa Press Clipping Bureau, news service, March 5.00
1012	Dr. Tom B. Throckmorton, Sec'y, salary, office ass't, December..... 100.00	1037	Dr. Tom B. Throckmorton, Sec'y, mailing March and April Journal, rent, office phone, postage, city delivery, telegrams for March and April..... 101.78
1013	Iowa Press Clipping Bureau, news service, November and December..... 10.00	Respectfully submitted, Tom B. Throckmorton, Secretary.	
1014	J. H. Welch Prtg. Co., December Journal, reprints, stationery, Editor..... 412.45		
1015	Dr. Tom B. Throckmorton, Sec'y salary, office ass't, January..... 100.00	JOURNAL STATEMENT January 1, 1919 to December 31, 1919	
1016	McNamara & Kenworthy, Des Moines, office supplies, Sec'y..... 1.75		
1017	Iowa Press Clipping Bureau, January & February news service..... 10.00	Income	
1018	Bankers Prtg. Co., advertising contracts, reprint orders..... 15.90		
1019	Underwood Typewriter Co., roller for typewriter 4.25	Advertising	\$5,472.86
		Reprints	453.82
		Subscriptions—non-members	43.50
		Sales	10.70
		Honorarium from Co-operative Medical Advertising Bureau.....	89.55

Subscriptions, 2205 1919 members	2,205.00	
Subscriptions, members other		
years	40.00	
Interest on balance last year.....	9.68	\$8,325.11

Expense		
Printing—		
9-64 page Journals.....	\$2,912.95	
1-68 page Journal	333.80	
1-80 page Journal	386.40	
1-84 page Journal	410.95	
		\$4,044.10
Engravings	121.86	
Wrappers for 1919 Journals.....	66.55	
Reprints	393.10	
Commission and discount.....	712.65	
Editor's salary	1,500.00	
Office Assistant Salary.....	560.00	
Editor's stenographer salary.....	60.00	
Mailing Journal and city delivery	136.09	
Rent—Office	90.00	
Telephone—Office	20.00	
Postage	54.82	
Stationery and office supplies.....	29.85	
News service	60.00	
Editor's sundry expense.....	27.57	
		\$7,876.59
Surplus	448.52	\$8,325.11

Tom B. Throckmorton,
Business Manager.

REPORT OF THE TREASURER

The Treasurer, Dr. Thos. F. Duhigg, presented his annual report. Motion was made that the report be accepted and referred to the Finance Committee. Seconded and carried.

The report follows:
Statement of receipts and disbursements and assets of the Iowa State Medical Society May 1, 1919 to April 30, 1920.

Balance Sheet		
Balance on hand 1919.....	\$20,276.88	
Received from Secretary.....	17,735.94	
Interest on \$10,000 Liberty		
Bonds	425.00	
Interest on time deposits.....	451.34	
Total		\$38,889.16
Expended as per orders here-		
with attached	\$11,425.28	
Assets		
Liberty Bonds	\$10,000.00	
On time deposit, People's Sav-		
ings Bank	16,389.18	
On deposit subject to check.....	1,074.70	
Total on hand Apr. 30, 1920	\$27,463.88	
Grand Total		\$38,889.16

Des Moines, Iowa, May 1, 1920.
This will certify that there was on deposit in this bank to the credit of the Iowa State Medical Society at the close of business April 30, 1920, the sum of sixteen thousand three hundred eighty-nine dollars and eighteen cents (\$16,389.18) in savings account including interest to date and the sum of one thousand seventy-four dollars and seventy cents (\$1074.70) on checking account.

PEOPLE'S SAVINGS BANK,
By E. A. Slininger,
Cashier.

I, E. A. Slininger, cashier of the People's Savings Bank, Des Moines, Iowa, do solemnly swear that the above statement is true to the best of my knowledge and belief.

E. A. Slininger.

STATE OF IOWA, Polk County, ss.

Subscribed and sworn to before me this 1st day of May, 1919.

E. R. Millard,
Notary Public.

Checks were issued as follows:

No.	1919		Amount
340	5- 6	Dutcher & Davis, medico-legal services, Jan., Feb., March.....	\$ 369.37
341	5-13	McNamara & Kenworthy, supplies, Sec'y office.....	23.40
342	5-13	J. W. Cokenower, Expense Committee, Public Policy and Legislation	54.00
343	5-13	Lewis Schooler, expense Med-ico-legal Committee	25.00
344	5-13	Thos. F. Duhigg, salary expense, Treasurer's office.....	153.46
345	5-13	Central Engraving Co., half tones	31.90
346	5-13	Max E. Witte, expenses of President	17.21
347	5-13	Ristrim & Geren, drawings for official guide	6.75
348	5-13	Pilgrim Specialty Co., badges and postage	36.16
349	5-13	Bankers Supply Co., stationery, Sec'y office	16.65
350	5-13	Lewis Schooler, expense, Med-ico-legal Committee	53.05
351	5-13	Welch Prtg. Co., April Journal and reprints	437.80
352	5-13	J. W. Cokenower, expense, Trustees meeting	5.00
353	5-13	T. B. Throckmorton, salary assistant, April, office expense....	209.80
354	5-13	T. B. Throckmorton, office rent and postage, May.....	38.73
355	6- 9	Iowa Press Clipping Bureau, April and May service.....	10.00
356	6- 9	Plumb Jewelry Co., gavel.....	8.50
357	6- 9	Welch Printing Co., May Journal and reprints.....	379.75

No.	1919	Amount	No.	1919	Amount
358	Void		389	11- 5	Central Engraving Co., engravings, November issue..... 9.00
359	6-28	Adelaide Folsom, reporting 1919 Session 150.00	390	11- 5	T. B. Throckmorton, ass't., salary, October 100.00
360	6-28	Central Engraving Co., zinc etchings, July issue..... 7.56	391	12- 3	American Medical Association, membership cards 10.35
361	7- 8	D. S. Fairchild, salary, second quarter, office expense..... 406.17	392	12- 3	Koch Bros., record book..... 2.60
362	8-28	O. J. Fay, deficit, Arrangement Committee, 1919 Session..... 157.48	393	12- 3	Dahlberg Duplicating Co., form letters 3.33
363	8-28	T. B. Throckmorton, rent, salary ass't., office expense..... 227.70	394	12- 3	Iowa Press Clipping Bureau, Sept. and Oct. news service..... 10.00
364	8-28	McNamara & Kenworthy, office supplies 5.10	395	12- 3	Luella Nash, reporting Eye, and Ear Section, 1919 Session 24.16
365	8-28	C. I. Dahlberg & Co., 300 form letters, Sec'y office..... 2.30	396	12- 3	Hiatt Ribbon & Carbon Co., ribbons for typewriter..... 9.00
366	8-28	Welch Prtg. Co., Journal, June 410.95	397	12- 3	Bankers Prtg. Co., letterheads and envelopes 45.45
367	8-28	Welch Prtg. Co., Journal, July 370.60	398	12- 3	W. B. Small, traveling expense trustees meeting 9.60
368	8-28	Dutcher & Davis, medico-legal services, second quarter..... 297.31	399	12- 3	J. W. Cokenower, expense, Trustees meeting 3.00
369	8-28	Upham Bros., 1919 bonds, Sec'y and Treas. 50.00	400	12- 3	Dutcher & Davis, medico-legal fees, third quarter..... 410.15
370	8-28	Moon Prtg. Co., envelopes, Treas. office 5.65	401	12- 3	Welch Prtg. Co., Journals, October and November..... 823.24
371	8-30	W. W. Pearson, Expense Committee, Nat'l Defense..... 246.47	402	12- 3	T. B. Throckmorton, Sec'y salary, rent, office expense..... 210.94
372	8-30	Iowa Press Clipping Bureau, July news service..... 5.00	403	12- 3	Zaiser Specialty Co., office supplies 2.40
373	8-30	Ida J. Brinton, reporting House of Delegates, 1919 Session..... 15.00	404	12- 3	Central Engraving Co., half tones, December issue..... 4.64
374	8-30	H. G. Langworthy, Expense Committee, Conservation of Vision and Hearing..... 35.25	405	12- 3	T. B. Throckmorton, salary, assistant, November 100.00
375	8-30	B. L. Eiker, Committee Expense 5.62	No. 1920		Amount
376	8-30	Wm. B. Small, expense, Trustees meeting 7.40	406	1-10	Central Engraving Co., half tones, January issue..... 10.94
377	8-30	J. W. Cokenower, expense, Trustees meeting 6.00	407	1-17	T. B. Throckmorton, salary, assistant, December 100.00
378	8-30	Bankers Prtg. Co., supplies, Sec'y office 33.35	408	1-17	Iowa Press Clipping Bureau, news service Nov. and Dec..... 10.00
379	8-30	Welch Prtg. Co., August Journal 336.00	409	1-17	D. S. Fairchild, salary, last quarter, office expense..... 407.75
380	8-30	Iowa Press Clipping Bureau, June service 5.00	410	1-20	Welch Prtg. Co., Dec. Journal and reprints 412.45
381	8-30	T. B. Throckmorton, salary, ass't., May, June, July, supplies, and rent 337.20	411	2- 4	T. B. Throckmorton, salary, assistant, for January..... 100.00
382	9- 1	Central Engraving Co., half tones, September issue..... 9.00	412	2-24	W. B. Small, expense, Trustees meeting 9.60
383	9-11	Ida J. Brinton, balance salary, June, July, August..... 45.00	413	2-27	J. W. Cokenower, expense, Trustees meeting 5.50
384	10-11	Iowa Press Clipping Bureau, August news service..... 5.00	414	2-27	T. E. Powers, expense, Trustees meeting 14.45
385	10-11	Welch Prtg. Co., September Journals and reprints..... 366.50	415	2-27	T. B. Throckmorton, Sec'y salary, rent, office supplies..... 230.70
386	10-11	Central Engraving Co., cuts for October issue 16.97	416	2-27	Lane & Waterman, medico-legal fees 25.00
387	10-11	T. B. Throckmorton, ass't. salary, September 100.00	417	2-27	Central Engraving Co., half tones, March Journals..... 4.64
388	10-11	D. S. Fairchild, salary, third quarter, Sec'y salary..... 407.00	418	2-27	Underwood Typewriter Co., repairs 4.25

No.	1920		Amount
419	2-27	Bankers Prtg. Co., reprints and order blanks	15.90
420	2-27	Iowa Press Clipping Bureau, Jan. and Feb. news service.....	10.00
421	2-27	McNamara & Kenworthy, of- fice supplies	1.75
422	3- 3	Dutcher & Davis, medico-legal fees for last quarter.....	541.47
423	3- 3	Welch Prtg. Co., January Jour- nal and reprints.....	561.70
424	3- 8	T. B. Throckmorton, Sec'y, ass't., salary for February.....	100.00
425	3-25	Welch Prtg. Co., February Journal	445.70
426	3-25	Dahlberg Duplicating Co., form letters, Legislative Committee	18.79
427	4-13	T. B. Throckmorton, March salary, office assistant.....	100.00
428	4-13	Welch Prtg. Co., Mch. Journal	423.50
429	4-13	Central Engraving Co., cuts, April issue	35.55
430	4-24	D. S. Fairchild, salary, first quarter, office supplies.....	407.99
431	4-24	T. B. Throckmorton, rent and office expense and salary.....	101.78
432	4-24	Iowa Press Clipping Bureau, March news service.....	5.00
Total			\$11,831.38
Check No. 333, dated April 15, 1919, paid during period of this year.....			1.89
			\$11,833.27
Check No. 430, dated April 24, 1920, still unpaid May 1, 1920.....			407.99
Total expended.....			\$11,425.28
Respectfully submitted, Thos. F. Duhigg, Treasurer.			

REPORT OF THE COUNCIL

The Report of the Council was read by Dr. G. C. Moorehead, Secretary, which upon motion, duly seconded and carried was received.

The report follows:

Reports from county secretaries are meager and less than two-thirds make any return. However they are from all sections of the state, and may be considered fairly representative.

The number of physicians who are eligible to membership is reported to be 1527. Last year membership was 1215 and this year 1309, showing a very healthy increase.

Interest in Society work is not encouraging; a few counties have practically abandoned their organizations; some of these feel it would be better for them to unite with adjoining counties and in the northwestern part of the state there is a desire to consolidate several counties and create what is al-

most a district society. This plan seems to possess merit.

Replies from over seventy counties indicate material changes that are quietly taking place in the profession.

Surgical cases are being referred to strictly surgical men in increasing numbers. Most practitioners preferring to do only emergency and minor work that can be readily done at the office. One county reports its surgical work mostly being sent to nearby fee splitting operators. It occurs to me that most fee splitting can be controlled by the regular surgeons reducing their charges, and by the standardization of our hospitals.

There is an encouraging sentiment in the profession to send their difficult cases to medical centers for thorough investigation. The Perkins and Haskell Claus bills by which children and adults are sent at the state and public expense to Iowa City meets with general favor. Some 2000 cases being sent in the past eight months.

Consultation with the home physicians are not being held as frequently as is desirable. Where the fault lies I do not know.

Fees are being increased in some sections to meet the new demands upon the doctor, but not in all counties. There is a lack of uniformity. Obstetrical cases range from \$15 to \$30. A greater uniformity is much to be desired.

I have received reports of seven deaths and but one obituary. This I consider a real misfortune. Evidently more deaths have occurred and the neglect to write or preserve obituaries cannot be condoned. Our State Journal is willing and anxious to give this information and as it appears the councilors cannot obtain it. I would suggest to the county secretaries that they send notices of death at once to the Editor of the Journal. We are making history. Let us make it right. Our men "over there" must not be forgotten.

G. C. Moorehead,
Secretary.

REPORT OF THE BOARD OF TRUSTEES

The report of the Board of Trustees was read by Dr. J. W. Cokenower, Chairman.

On motion duly seconded and carried, the report was received.

The report follows:

The reports just read by our worthy Secretary and Treasurer are self explanatory and need no further elaboration. They show our Society's finances in good condition.

May 1, 1919 to April 30, 1920, our receipts were \$17,735.94 and disbursements \$11,712.01 to which should be added \$446.80 for outstanding medico-legal bills for the past three months which will be acted upon at the next meeting of our board. This shows a safe and quite satisfactory financial business margin for the year just ended.

The placing of the contract for printing our Jour-

nal this year was not without some obstacles. The printing firms hesitated to give estimates. It will be still more difficult for next year on account of the unsettled condition of labor and material, printing contractors refusing to give even an approximate estimate or guess for the work, hence it is problematic whether it will be necessary for us to increase the sources of our income to meet the exigencies of the times or to go ahead and meet the conditions as they arise in such way as to your board of trustees seems advisable.

Under Chapter VIII, Section 8 of the By-Laws, the Medico-legal Committee selects the attorney or attorneys in mal-practice suits—a fact that is generally understood among the officers and committees of our Society but does not seem to be so understood by the doctors of the state, as when one is sued he usually employs some local friend, an attorney, before reporting to or consulting with the Medico-legal Committee and then expects the Society to pay the bill; and these bills, some of which have been large, have been troublesome factors for the board to handle satisfactorily and prompts your Board of Trustees to suggest to the members of the State Society that no attorneys be employed in malpractice cases except they be selected or authorized by the Medico-legal Committee and its attorney.

J. W. Cokenower, Chairman,
T. E. Powers,
W. B. Small,
Board of Trustees.

REPORT OF MEDICO-LEGAL COMMITTEE

Dr. D. S. Fairchild, Sr., Chairman, presented the report of the Medico-legal Committee.

Dr. W. B. Small moved that the report be received, approved and the action of the Committee endorsed. Seconded and carried.

The report follows:

SPECIAL REPORT OF THE COMMITTEE OF MEDICAL LEGAL DEFENSE

At the meeting of the House of Delegates of the Iowa State Medical Society in May, 1919, the Committee presented the question of the formation of the protective insurance organization for medical defense under the control of the State Medical Society. This was virtually the organization of an insurance company with all the officers and machinery necessary to the maintenance of a commercial insurance. This question came up as a result of a law passed by the legislature, granting insurance companies the right to carry commercial insurance against malpractice. It had been the purpose of the Committee to ask consent of the House of Delegates to extend the benefits of the fund to the payment of judgments and settlements, but when this law was passed, we were barred by the nature of the bill from the right to pay judgments or settlements. We are limited to the payment of legal expenses of suit. After extended consultation with our attorney and with

members of the State Society, we concluded that it would not be sound policy for the State Society to engage in insurance business even if its own members were the chief beneficiaries. On investigation as to our legal right to maintain a protective feature in malpractice cases, we were advised it was entirely lawful for us to defend our members as a committee, on the basis of our work since the organization of the malpractice feature. It was believed that a malpractice organization, which paid judgments, would rather encourage malpractice than otherwise. It was felt that if it was understood that the defendant physician was protected against loss of money from judgments, that a jury would feel more inclined to award the judgment in view of the fact that the payment would not fall on the defendant doctor himself, but on the insurance company. The Committee felt that it could render better service to the Society by limiting the defense to the professional reputation of the doctor, who could in addition, if he felt disposed, avail himself with insurance to protect his pocketbook. Therefore, we have made no change in the policy of the Committee since the work was first organized.

There is one special subject that the Committee desired to present to the House of Delegates and that is in regard to physicians employing attorneys without consulting the Committee on Malpractice or the attorney of the State Society. According to the by-laws of the State Society and according to rules sent out to every member of the Society, and published in the Journal from time to time, the defendant physician is required to consult with the Committee or the attorney for the State Society, as to the necessity of employing local attorneys. It very naturally happens that when an inexperienced doctor is sued for malpractice, he appeals at once to some legal friend and establishes an employment relation with him and when the case is finally closed there is a considerable local attorney fee to be paid. The Committee has been disposed to recognize every extenuating circumstance in relation to the employment of outside attorneys but when the defendant physician has absolutely disregarded the rules of the State Society, has neglected to communicate with the Committee in any respect, not even furnishing the Committee with knowledge as to the nature of the case and when the first formal information came to the Committee in the form of a bill for local attorneys' fee, we have felt justified in refusing to O. K. such a bill, insisting that the doctor employing such attorneys without our knowledge or consent should pay such additional attorneys' fees. We have felt it no hardship on the part of a defendant physician to notify the Committee of the fact that he had been sued and making a statement of the nature of the case, and consulting with the Committee or with the attorney of the State Society, as to the employment of local attorneys. We have insisted upon the enforcement of the rule when it would not involve greater hardship, because of the existence of a by-law covering the matter. We cannot avoid the feel-

ing that members of the State Society, who have been subjected to the risk of malpractice suit, should have interest and enterprise enough to examine the by-laws covering malpractice. It has been the custom of the Committee to send to the member who has notified the Committee of the suit a copy of the rules so that he be governed accordingly. We are quite sure that no commercial company would overlook so many irregularities on the part of the insured as the Committee of the State Society does. We have no suggestions to make on this subject as we believe that the by-law is a just and proper one.

We are pleased to report to the House of Delegates that the number of physicians who have applied for medical defense who have been delinquent in their dues is yearly decreasing and the members of the Society are feeling the importance of paying their dues early in the year.

We have gathered the data concerning judgments paid and the amount of money paid in the settlements of cases out of court.

Of this amount \$500 was paid without consulting our attorney.

The total amount of damages sued for from 1908 to 1919 was \$1,774,073. The amount of judgments rendered was \$5,275; settled out of court, \$7,200. A judgment of \$1,000, which was reversed by the Supreme Court was never retried. A judgment of \$1,500 was reversed in the Supreme Court and before the case could be retried the plaintiff died and no further action was taken, therefore \$2,500 may be deducted from this sum.

Referring to the settlements made out of court, we would mention the fact that in one case where a judgment of \$500 was rendered against the plaintiff, the case was tried in the absence of our attorney and the adjustment made without our knowledge or consent. Eliminating the \$2,500 rendered in judgment but never collected, it will give the sum of approximately \$10,000 paid in judgments and settlements.

ATTORNEYS BILLS PAID FOR THE YEAR
OF 1919-1920

Dutcher, Davis and Hambrecht.....	\$1,695.58
Local attorney's fees.....	275.00

Total attorney's cost for Medical Defense during the year.....	\$1,970.58
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CONDENSED REPORT OF CASES AGAINST
MEMBERS OF THE IOWA STATE MEDICAL SOCIETY, 1919-1920

To Dr. D. S. Fairchild, Dr. H. B. Jennings, and Dr. Lewis Schooler, Medical Defense Committee.
Gentlemen:

We have submitted a full report upon all cases pending at the date of our last report and also of cases commenced since that date. The following is a summary of certain particulars in all cases com-

menced since the establishment of the Medical Defense Committee of the Society.

Cases commenced since organization of department	169
Cases commenced prior to the report of 1909.....	15
Cases commenced during 1909-1910.....	13
Cases commenced during 1910-1911.....	10
Cases commenced during 1911-1912.....	14
Cases commenced during 1912-1913.....	13
Cases commenced during 1913-1914.....	10
Cases commenced during 1914-1915.....	24
Cases commenced during 1915-1916.....	19
Cases commenced during 1916-1917.....	17
Cases commenced during 1917-1918.....	13
Cases commenced during 1918-1919.....	14
Cases commenced during 1919-1920.....	7
Cases pending at date of 1909 report.....	7
Cases pending at date of 1910 report.....	10
Cases pending at date of 1911 report.....	14
Cases pending at date of 1912 report.....	25
Cases pending at date of 1913 report.....	26
Cases pending at date of 1914 report.....	21
Cases pending at date of 1915 report.....	28
Cases pending at date of 1916 report.....	33
Cases pending at date of 1917 report.....	33
Cases pending at date of 1918 report.....	29
Cases pending at date of 1919 report.....	29
Cases now pending.....	26
Total cases disposed of.....	149

Nature of Cases

Malpractice in removing seed wart.....	1
Malpractice in not discovering and uniting several ligaments of the wrist.....	1
Alleged assault	2
Removal of cancer of the hand.....	1
Conspiracy to have plaintiff declared insane.....	2
Fracture of arm.....	25
Fracture of leg or femur.....	42
Appendicitis—sponge case	1
Operation for kidney—sponge case.....	1
Appendicitis—malpractice in operation.....	3
Appendicitis—exploratory opening	1
Childbirth, alleged failure to attend after alleged agreement to do so; child died (separate action by father and mother).....	2
Libel for testifying patient was insane.....	1
Hand crushed, alleged improper treatment.....	1
Failure to discover sub-caracoid dislocation of shoulder joint	1
Hand lacerated, alleged improper treatment.....	1
Ear, alleged improper treatment.....	2
Eye, alleged improper treatment.....	1
Infection, childbirth	2
Medical treatment of child.....	1
Abortion, improper after-treatment.....	3
Abortion, without justification.....	2
Improper treatment of nail puncture in foot.....	1
Alleged removal of wrong kidney.....	1
Stomach trouble, alleged improper treatment and failure to treat.....	1

Anesthetic, death under.....	1	Aggregate amount of judgments.....	5,275
Improper diagnosis of diphtheria.....	1	Consultation on cases threatened in which	
Improper diagnosis of broken ribs.....	1	no proceedings were had.....	78
Removal of uterus, alleged negligent incision of the bladder	1	Dutcher, Davis and Hambrecht.	
X-ray burn	3	Iowa City, Iowa, April 15, 1920.	
Infection following amputation.....	1		
Alleged improper treatment of scald.....	1	Rules Governing the Members of the Iowa State	
Removal of adenoids.....	2	Medical Society with Reference to the	
Alleged improper abdominal incision.....	3	Defense Fund	
Failure to administer serum, patient died of lock jaw	1	1. The object and purpose of maintaining a De-	
Fracture of collar bone.....	2	fense Fund is not to aid in defeating any just claim	
Willful insertion of instrument, producing abor-	1	which any person may have against any member of	
tion	1	this Society for malpractice. The Society recognizes	
Operation for pregnancy of fallopian tube.....	1	that sometimes mistakes may occur with the most	
Negligence in administration of poison, causing	1	careful and skillful physicians and surgeons, and the	
death	1	Society, through its committee, will use all just and	
Improper treatment of wound in leg from kick	1	honorable means to bring about a fair settlement of	
of horse	1	any such cases. The necessity of maintaining such	
Alleged negligence in communicating erysipelas	1	fund arises out of the fact that nine-tenths of the	
to woman in childbirth.....	1	suits brought against doctors for alleged malpractice	
Negligence in suffering patient mentally delin-	1	are little less than blackmail. Experience shows that	
quent to jump out of unguarded window in	1	the great majority of such cases are brought without	
private sanitarium	1	any purpose of prosecuting them to judgment, but	
Negligent amputation of finger.....	3	only with the view of forcing the doctor to settle	
Negligence in attending cut severing cords of	1	rather than to go to the expense or publicity of a	
hand	1	trial.	
Wrongfully administering morphine.....	1	Every member of the Society is interested in such	
Communicating small-pox to patient in hospital..	1	litigation, because every dollar that is paid upon	
Fracture of lower jaw.....	1	unjust claims in settlement thereof is encouragement	
Dislocation of knee.....	1	for further attempts to extort money by such meth-	
Cancer of stomach.....	1	ods. In the organization of the Defense Fund it is	
Draining pelvic abscess.....	1	the purpose of the Society to aid its members in de-	
Operation for tonsils without consent.....	2	fending against these attempts at extortion. The	
Negligence in removing button from child's	1	expense of making a proper defense is a burden to	
throat	1	many members of the Society, and inasmuch as all	
Hot water bottle burn.....	1	are interested in defeating unjust claims, it is no	
Failure to discover fractured vertebrae.....	1	more than just that all members should contribute	
Improper treatment of vaginal infection.....	2	to aid in such defense.	
Improper treatment of inflammatory rheumatism	2	2. It is not intended that the benefits of the De-	
Negligent removal of tonsils.....	3	fense Fund shall be available for the purpose of	
Negligent treatment of gunshot wound.....	1	aiding in controversies over bills for services, and in	
Negligent treatment of abscess of bladder.....	2	case an action is brought by a doctor to recover for	
Negligent treatment of abscess under arm.....	1	his services and the defendant simply sets up a	
Wrong diagnosis of sprain of ankle.....	1	counter-claim to the extent of the bill or for the pur-	
Exposing patient to scarlet fever by wrong diag-	1	pose of defeating the bill, asking no affirmative	
nosis	1	judgment beyond the amount of the bill, such doc-	
Improper treatment of insect bites.....	1	tors shall not be entitled to the benefits of the De-	
Negligent treatment of fractured finger.....	1	fense Fund. Where, however, an action is com-	
Improper diagnosis of fractured foot.....	1	menced upon a bill and a counter-claim is filed for	
Paralysis of facial nerve in mastoid operation.....	1	malpractice, or an independent action is filed for	
Failure to diagnose abscess of kidney.....	1	malpractice in which the patient claims a judgment	
Improper treatment of ligaments of wrist.....	1	against the doctor in excess of the amount of the	
Negligence in tying patient in bed, resulting in	1	bill, then in such case the doctor is entitled to the	
gangrene and amputation of leg.....	1	benefits of the Defense Fund the same as if no ac-	
Exploratory opening for diagnostic purposes,	1	tion had been brought by him.	
negligence in exposing person, resulting in	1	3. Experience shows that many malpractice suits	
death of child.....	1	arise out of a controversy over bills for services.	
Total amount of damages claimed in all	1	For this reason it is the judgment of the committee	
cases to date.....	4	that in all cases where there is any serious contro-	
Judgments recovered against members.....	4	versy about a bill for service the doctor ought to	
		submit the matter to the attorneys for the associa-	

\$1,774,073

tion before commencing suit upon the bill. The purpose of such submission is not that they shall render any service toward the collection of the bill, but that from experience in such matters they make suggestions with reference thereto which may avoid litigation and prevent the commencement of an action for malpractice.

4. Whenever an action is commenced or threatened, the doctor should write to the COMMITTEE ON MEDICAL DEFENSE, making a full fair statement of the facts so that they may advise the doctor at as early a time as possible with reference to the action or the threatened action. In many cases advice may be given which will avoid litigation.

5. In all cases where a notice is served upon a member of the Society of a suit or contemplated suit, the same should be sent forthwith to the attorneys for the Society, in order that no disadvantage may result from delay.

6. Members will understand that in the commencement of any action in the District Court a notice is served at least ten (10) days before the term for which suit is brought, and that gives plenty of time to communicate with the attorneys for the Society so that rights may be fully protected.

7. In connection with any notice so sent to the attorneys or committee, the members should send at the earliest possible date a full statement of the facts pertaining to the case to the committee who will communicate with the attorneys as to the course of action to be taken in this particular case.

8. While in most cases which actually come to trial it will be necessary to have local counsel to cooperate with the attorneys for the Society, such LOCAL COUNSEL SHOULD NOT BE EMPLOYED until after communicating with the committee or attorneys for the Society. In many instances the cases will be dismissed or otherwise disposed of without trial, so that the expense of local counsel may be avoided.

9. It is of the utmost importance that members of the Society shall be guided by the foregoing rules, and it is hereby expressly declared that where the member of the Society does not comply with the foregoing rules he shall not be entitled to the benefits of the Defense Fund, unless upon proper showing to the Medical Defense Committee satisfactory excuse for not complying with the rules is established.

10. The Society will pay for the services of local counsel, provided they are employed under the direction of the regular attorneys for the Society, and not otherwise.

Members should carefully read these rules, because they must be strictly observed to obtain the benefits provided.

Members of the Committee:—D. S. Fairchild, Sr., Chairman, Clinton; H. B. Jennings, Council Bluffs; Lewis Schooler, Des Moines; C. M. Dutcher, attorney for the Society, Iowa City.

REPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION

The report of this committee was read by Dr. J. W. Cokenower, chairman, which upon motion of Dr. Duhigg, duly seconded and carried was received and placed on file.

The report follows:

Your committee begs leave to report that its past experience, especially during the meeting of our 1919 legislature, in endeavoring to maintain the high standard of medical education, hygiene and sanitation, realized that it would be absolutely necessary to have the cooperation of the doctors and their friends in the state, if we succeeded in the next session of the legislature, as well as we did in the last, because the opponents to modern medical education are organizing their forces and spreading their propaganda which will enable them to make a more formidable showing before the next legislature.

Your committee invited all the county medical societies in the state to cooperate with the state committee and requested that they elect a committee of three, of which the president and secretary should be ex-officio members, and are much encouraged at the interest manifested, and all the county medical societies of the state have reported their committees and promised cooperation except fifteen counties and we believe they will report later and join us, and we have suggested to all of the committees that they not only get in touch with the hold over legislature members, but candidates for the honor and those elected, as well, and give them to understand what they will be expected to do.

Your committee believes some action ought to be taken concerning the workmen's compensation law which was an injustice to the doctors and hospitals when enacted a few years ago and still more so now since the cost of everything has doubled and even trebled. It may not belong to the committee but we suggest that there be a better understanding among the doctors concerning fees, private, insurance and civil service examination as our fees are not in keeping with the cost of living and should be raised. It is the purpose of this committee to work and follow up the plan heretofore mentioned realizing that whatever is done along the lines suggested must be done in the county medical societies through their members of the legislature.

J. W. Cokenower, Chairman,
B. L. Eiker.

Dr. Henry Albert moved that an invitation be extended to Mr. O. K. Patton of the Code Commission to address the House of Delegates on the proposed Medical Practice Act. Seconded and carried.

Dr. D. S. Fairchild, Sr., Chairman of the Medico-legal Committee presented a supplemental report for this committee.

Dr. Duhigg moved that a vote of thanks be extended to the Medico-legal Committee. Seconded and carried.

No report from Committee on Health and Public Instruction.

REPORT OF COMMITTEE ON CONSTITUTION AND BY-LAWS

This Committee had no report to make; the Chairman, Dr. V. L. Treynor, requested that the Secretary read a communication proposing a change in the Constitution and By-Laws governing Component Societies. The Secretary, Dr. Tom B. Throckmorton then read the following:

Rock Rapids, Iowa, May 10, 1920.

Dr. Wm. Jepson,
Sioux City, Iowa.
My Dear Doctor:

As you know the Northwest Iowa Medical Society was formed a few years ago by the doctors of these four counties for social and professional purposes. You doubtless know too that the experiment has proved a splendid success. Our two meetings each year have never failed to be well attended but on the contrary have all been marked with great interest and enthusiasm.

In contrast to this, you will find if you talk to any doctor in these four counties, that the county society medical meetings are a fizzle. I know how it is in Lyon. No matter how hard we try it is next to impossible to get a quorum together so that they have degenerated into a yearly pretence of a meeting at which a few men get together and transact what business is actually necessary to keep up their standing as members of the A. M. A. From what I have been told the same situation exists in the other counties.

Therefore at our recent meeting at Sheldon we decided that we would like to dispense if possible with the county organization altogether but be a component part of the State Society.

This will necessitate a few changes in the Constitution and By-laws of the State Society. Since a proposed amendment to the Constitution has to lay on the table a year we will concern ourselves for the present only with it.

As president of the Northwest Iowa Medical Society, therefore, I have been instructed to request you, as a member of the Committee on Constitution and By-laws to see that the following proposals are properly brought before the meeting, viz:

Proposed Changes in the Constitution

1. That Article III be amended by inserting the words "and district" between the words county and medical.

2. That Article V and VI and Sections 2 and 3 of Article IV be amended by striking out the word "county" wherever it appears.

Trusting that we may have your cooperation in this matter, I am

Yours very truly,
L. L. Corcoran.

Dr. Small moved that the communication be re-

ferred to the Committee on Constitution and By-laws. Seconded and carried.

REPORT OF COMMITTEE ON PUBLICATION

Dr. D. S. Fairchild, Sr., Chairman, presented the report for the Committee on Publication.

On motion by Dr. Tom B. Throckmorton, duly seconded, and carried, the report was accepted.

The report follows:

As Chairman of the Committee of Publication and Editor of the Journal of the State Medical Society, I have felt it my duty to report to the House of Delegates some facts in relation to the Journal which cover a period of five years, since the Journal assumed its present form and changed its place of publication to Des Moines.

The increased cost of material and labor has affected the Iowa State Medical Journal as it has every other undertaking. We have maintained the cost to the members of the Society at the old figures. To do this, we have been obliged to increase the number of advertising pages and correspondingly decrease the reading pages as will be seen in the following statements.

For the year of 1915, we published 546 reading pages and approximately 285 advertising pages.

For the year of 1916, we published 536 reading pages and approximately 290 advertising pages.

For the year of 1917, we published 474 reading pages and approximately 320 advertising pages.

For the year of 1918, we published 452 reading pages and approximately 338 advertising pages.

For the year of 1919, we published 420 reading pages and approximately 370 advertising pages.

Some two years before we changed the form of our Journal, the Journals of the State Societies agreed on a certain form. The largest societies—double column pages nine by eleven, the number of pages to be determined by the society itself. The Iowa State Medical Journal contracted for 2500 copies of sixty-four pages each, with certain terms for any increase in the number of pages and in the number of copies ordered. The contract price for 1915, 1916, 1917, 1918, 1919 and 1920 are as follows:

1916—2400—64 page Journals.....	\$246.00
1917—2500—64 page Journals.....	295.00
1918—2500—64 page Journals.....	284.00
1919—2500—64 page Journals.....	304.00
1920—2500—64 page Journals.....	380.00

The earnings of the Journal are from the following sources: Advertising, profits on reprints, sales of Journal, and \$1.00 deducted from the dues of each member of the Society. The surplus for the five years is as follows: 1915, \$197.00; 1916, \$122.88; 1917, \$21.93; 1918, \$242.01; 1919, \$448.52.

The expenses of the Journal consist of publishing, salaries, newspaper clippings and postage. We shall not attempt to be entirely accurate in this statement of accounts because they are much better kept by the Secretary who carefully watches the business side of the Journal.

It will be seen that the reading pages of the Journal have fallen off one hundred twenty-six pages in five years. The greatest falling off being from 1917 to 1919. There has been an increase in the cost of publication for several years on account of the increased cost of material and on account of the increased cost of labor and the uncertainty of labor. When we first divided the relation between advertising and reading pages, we had twenty-four pages of advertising and forty pages of reading matter. In 1919 the relation has changed so that there are thirty-six pages of advertising and twenty-eight pages of reading matter. It will be seen that the profits for 1919 were \$241.52 more than the profits in 1915, but all of this profit was more than absorbed in the increased cost of production. The exact figures have not been quite as stated because from time to time we have increased the Journal several pages, whenever we could find a margin of profit in our paper, but the watchful care of the Board of Trustees has kept us pretty close to the line.

We feel that the House of Delegates should take notice of the facts herein presented and authorize, if the finances of the Society will permit it, an increased allowance to the Journal. If the per capita rate was increased from \$1 to \$1.25, it would give us something more than \$500 for the year.

I desire to call attention to the fact that we have been obliged to increase the issue from 2500 copies to 2700 copies to meet the increased calls for the Journal. It is not necessary for me to discuss the merits of the production but simply to set forth certain facts that may be of interest to the Society. The Journal of the Iowa State Medical Society is the only Journal published in Iowa and with the present size, it requires our utmost skill to fit the papers so that we may keep on fairly good terms with the members of the Society and others who send us literary contributions. We have assumed that the activities of the State Medical Journal have increased very materially in the past few years. We no longer consider it sufficient to publish papers and society notices but it should be a paper that in some degree influences professional opinion.

There is a duty on the part of the members of the Society that is only imperfectly appreciated and that is the aid that members of the Society can give that the Journal is the proper medium through which they can meet the public. The common complaint made by advertisers is that the members of the Society do not show a sufficient amount of interest in the advertising columns of their own journal, and an advertiser is very sensitive to the effect that the carrying of an advertisement has upon his business. The foreign advertisements that come to our Journal are furnished through the Journal of the American Medical Association and which have the approval of the Council of Chemistry and Pharmacy, when drugs and pharmaceutical preparations are involved. We have made an effort to secure clean advertising and have not accepted advertise-

ments until we were reasonably sure that the thing offered was reliable.

I am presenting this report more in the form of a plea for a greater liberality on the part of the House of Delegates. The Board of Trustees most consistently have held us down to the recognized appropriation for the Journal. We feel that we could ask the House of Delegates to transfer 25 cents of the contribution each member makes to the Medical Defense service. We feel urgent in this matter because we have an overwhelming mass of material we are desirous of publishing and we would like to escape making promises that we cannot easily fulfill.

NEW BUSINESS

Under the head of "New Business," a motion was made by Dr. A. P. Donohue that the Committee on Legislation and Public Policy bring in a Resolution Thursday morning concerning the Workmen's Compensation Law. Seconded and carried.

On motion the House of Delegates adjourned at 5:45 p. m.

The delegates from the various congressional districts then assembled for the purpose of selecting a member from each district to serve upon the Nominating Committee. The Committee reported as follows:

First District—C. R. Armentrout, Keokuk.
 Second District—J. T. McClintock, Iowa City.
 Third District—A. G. Shellito, Independence.
 Fourth District—F. A. Hennessey, Calmar.
 Fifth District—A. G. Hejinian, Anamosa.
 Sixth District—E. T. Edgerly, Ottumwa.
 Seventh District—M. N. Voldeng, Woodward.
 Eighth District—R. J. Matthews, Clarinda.
 Ninth District—V. L. Treynor, Council Bluffs.
 Tenth District—C. J. Saunders, Fort Dodge.
 Eleventh District—

Second Meeting—Thursday Morning, May 13

The second meeting of the House of Delegates was held in Room 322 Fort Des Moines Hotel and was called to order at 8:20 a. m. by President W. L. Allen.

Roll call showed the presence of 12 officers, and 33 delegates, a total of 45.

REPORT OF SPECIAL COMMITTEE ON EUGENICS

Dr. Max E. Witte, Chairman, presented the report of the Special Committee on Eugenics.

Dr. Small moved that the report be endorsed, and referred to the Public Policy and Legislative Committee.

The report follows:

Since the problem of Eugenics, by the reduction of Degeneracy, is so vast, and its solution so fundamentally depending on the better information of our people, your Committee, after careful study and due deliberation, respectfully ask the adoption of the subjoined recommendation, by the Iowa State Medical Society.

And furthermore, your Committee would lay upon its members, individually and collectively, the solemn duty of urging, and by all legitimate means, bringing about, the enactment of its provisions, respectively, by State and National Legislative Assemblies.

The recommendation is as follows:

For the Reduction of Degeneracy, it is recommended by the Iowa State Medical Society:

First

That the State Legislature establish and provide for an organization of:

(a) Field Investigators, to investigate and gather all obtainable information regarding degeneracy in our midst. These field workers are to be assisted by data in possession of all the institutions, under the several boards of control.

(b) Popular Instructors, who are to teach and inform the people, in matter of Eugenics, and avoidance of degeneracy. They are to instruct the teachers at their institutes; the populace, at chautauquas, fairs, and other public gatherings, and with clinics at stated times, at county seats, and important cities, high schools, normal schools, and colleges.

This organization of field investigators and instructors, is to be in connection with, and under the direction of, the Extension Department of the State University; with its central office at Des Moines; and it should have a director for, and in each Congressional District, with authority to organize his district into smaller sub-districts.

It is also, to establish and enlist the harmonious cooperation of similar organizations in other states, towards a common end—the betterment of our race.

The Extension Department is to report, relative to the activities of its Eugenics branch, to the State Medical Society, at its annual meeting.

Second

Our senators and representatives in congress, should be urged to bring about the appointment of a medical man as Secretary of Public Health, and as a member of the President's Cabinet, under whose direction, the campaign against degeneracy, and other important activities for the welfare of our people, may have governmental authority, and nation-wide scope.

Respectfully submitted:

Max E. Witte,
M. Nelson Voldeng,
Frank A. Ely,
Committee.

No report from the Library Committee.

No report from Committee on Conservation of Vision and Hearing.

Dr. J. W. Cokenower, Chairman of the Public Policy and Legislative Committee, introduced to the House of Delegates, Mr. O. K. Patton, Annotator for the Code Commission, who would interpret in so far as possible the proposed bill concerning the med-

ical practice act which is to be presented at the next session of the legislature.

Mr. Patton, in a very clear and concise manner, brought out the salient points of what is known as Code Bill No. 63—a revision or rewriting of all the laws relative to public health and the practice of medicine in the state.

Dr. Samuel Bailey moved that a vote of thanks be extended to Mr. Patton and also to the gentleman who brought him. Seconded by Dr. Small. The appreciation of the House was expressed by a rising vote and applause.

Dr. Thos. F. Duhigg moved that the House of Delegates go into Executive Session. Seconded and carried.

The Chair appointed Dr. Duhigg sergeant-at-arms, and the House was ordered cleared of all but delegates.

Dr. Duhigg moved that a committee of three be appointed to bring before the House of Delegates a resolution for a standard charge for medical and surgical skill. Motion duly seconded and carried.

It was moved by Dr. Small that we rise from Executive Session. Seconded and carried.

The President appointed as a committee to prepare and report a standard charge bill, the following: Dr. Thos. F. Duhigg, Dr. C. J. Saunders and Dr. J. H. Schrup.

NEW BUSINESS

Under the head of "New Business," Dr. Small moved that an amendment be made to Chapter 6, Section 3 of the By-laws on second line by striking out "\$10,000" and inserting "\$25,000;" under Section 4 of the same Chapter, the latter part of the Secretary's bond, by striking out "\$10,000" and inserting "\$25,000,"—the funds having grown so large. Motion was seconded by Dr. Voldeng, and carried.

Upon motion, duly seconded, the House adjourned at 10:10 a. m.

Third Meeting, Friday Morning, May 13

The House of Delegates met in Room 322 Fort Des Moines Hotel and was called to order at 8 a. m. by President William L. Allen.

Roll call showed the presence of 13 officers and 45 delegates, a total of 48.

The minutes of the first meeting of the House were read. There being no corrections, the minutes were approved as read.

The minutes of the second meeting were read. There being no corrections, the minutes were approved as read.

REPORT OF THE COMMITTEE ON NOMINATIONS

The report of the Committee on Nominations being the first order of business, Dr. C. J. Saunders, Chairman, presented the report as follows:

Your Committee on Nominations beg leave to submit the following report and move its acceptance. The report was accepted.

For President-elect—Dr. A. M. Pond, Dubuque; Dr. F. M. Fuller, Keokuk, and Dr. G. N. Ryan, Des Moines.

For First Vice-President—Dr. C. P. Howard, Iowa City.

For Second Vice-President—Dr. J. W. Osborn, Des Moines.

For Councilors, First District—R. S. Reimers, Fort Madison; Eleventh District, G. C. Moorehead, Ida Grove.

For Trustee—Dr. T. E. Powers, Clarinda.

For Delegates to American Medical Association—Dr. L. W. Dean, Iowa City; Dr. W. L. Allen, Davenport.

For Alternate Delegates—Dr. M. J. Kenefick, Algon; Dr. John Peck, Des Moines.

For vacancies on the following committees:

Medico-legal—Dr. Lewis Schooler, Des Moines.

For Public Policy and Legislative—Dr. J. W. Cokenower, Des Moines, Dr. B. L. Eiker, Leon and Dr. J. W. Harrison, Guthrie Center.

For Health and Public Instruction, Dr. Jeannette F. Throckmorton, Chariton.

For Constitution and By-laws—Dr. V. L. Treynor, Council Bluffs; Dr. Wm. Jepson, Sioux City; Dr. D. C. Brockman, Ottumwa.

For Publication—Dr. W. L. Bierring, Des Moines and Dr. C. P. Howard, Iowa City.

For Finance—Dr. C. J. Saunders, Fort Dodge; Dr. J. W. Harrison, Guthrie Center, and Dr. E. C. McClure, Bussey.

ELECTION OF OFFICERS

The next order of business being the election of officers, the House then proceeded to an election.

The Chair appointed Drs. Luckey and Donohoe tellers, and the ballot was taken for President-Elect.

The President declared that as no one had received a majority vote on the first ballot, a second ballot be taken. On the second ballot, Dr. Alanson M. Pond, of Dubuque, received the majority vote.

The President, Dr. W. L. Allen, announced that Dr. Alanson M. Pond of Dubuque having received the majority of the votes cast, was thereby elected President-Elect of the Iowa State Medical Society.

Dr. Small moved that as there was but one candidate selected to fill the remaining vacancies, the Secretary cast the ballot for the House of Delegates for the balance of the offices and committees to be filled at this time; duly seconded, and carried unanimously. The Secretary then cast the ballot for the remaining officers and members of Committees.

Dr. Duhigg moved that Des Moines be the place of meeting for the 1921 Session. Motion was seconded.

Dr. J. H. Schrupp extended an invitation to the Society to hold the 1921 Session at Dubuque. The invitation was expressed in a motion, and was duly seconded.

A motion was made by Dr. Small that a ballot be taken on the next meeting place.

The House proceeded to the choice of place of meeting. Forty-eight ballots were cast, 29 for Des Moines and 19 for Dubuque. Des Moines having received the majority of votes cast, the President announced Des Moines the meeting place for the Seventieth Annual Session, May 11, 12, 13, 1921.

REPORT OF LIBRARY COMMITTEE

Dr. D. S. Fairchild, Sr., Chairman, presented the report of the Library Committee, and moved that the Committee be continued. Dr. Throckmorton moved that the report be accepted and the Committee continued. Seconded and carried.

The report follows:

Des Moines, May 10, 1920.

To Dr. D. S. Fairchild, Chairman, of the standing Advisory Committee of the Iowa State Medical Society on the selection of books and periodicals for the Medical Department of the Iowa State Library.

Dear Dr. Fairchild:

I take pleasure in complying with Dr. Hill's suggestion that I give your Committee a general report on conditions in the newly created Medical Department of the State Library.

While the Department is new as such, and is far from being "full-armed," it came into being equipped with about 1800 volumes, which had accumulated in the Medical Section of the State Library. These included several long but more or less incomplete sets of standard medical periodicals. Our first efforts were directed to the completion of these sets.

The Department was materially strengthened by the donation of about 1300 volumes from the Board of Trustees of the Medical School of Drake University, these being the residuum of the school's medical library after selections had been made for other uses.

The Department was further strengthened by the donation of several hundred books and bound periodicals from the private libraries of Drs. Hill, Fairchild, Criley and others, enabling us to fill in several broken sets and add materially to the general value of the library.

But as preliminary to the laborious task of blending into a single working library these accessions, the prime necessity was provision for the scientific classification, cataloging, shelving and shelf-listing of several thousand bound volumes; also the sorting of several thousand pamphlets and broken sets of unbound periodicals, many of them turned over to us by the Health Department of the State. To accomplish this essential preliminary work, unable to find a medical librarian who felt herself competent to undertake the necessary classification and cataloging of two separate libraries and several hundred donations, blending same into one working library, our Library Board acting on my recommendation authorized me to transfer the State Library's head cataloger to the Medical Librarianship, and temporarily appoint in her stead, a head cataloger. These

two trained experts have for months been working together on the reorganization of the Medical Library, at the same time keeping up, as well as possible, the regular work of the General Library.

The result of their joint labors is given in a special report from the acting Medical Librarian, Miss Lavinia Steele, prepared at my request for the information of your Committee.

Your Committee knows in general my plans, for the future usefulness of the State's Medical Department; for had it not been for your vision and co-operation, and the personal work of your representative, Dr. Hill, the last General Assembly would not have appropriated money for that Department. That the information may be passed on to members of the State Medical Society, let me restate, in few words, the main purpose for which all this preliminary work is a preparation.

My purpose is to bring to the remotest physician and surgeon in Iowa, and to students of medicine and surgery, through the application of our traveling library system, and by photographic sheets of pages in books and periodicals, all the information obtainable on any subject desired, and without other cost than that of parcel post and, (where pages are reproduced) the bare cost of the photographing said pages. Of course the main feature of the proposed system is to establish a readily worked medical reference library, from which all who are interested can be supplied with the information they want, whether it be down-to-date reports of clinical research, or historical data.

I trust the present standing committee will be continued, as I shall need its advice and support.

Respectfully,

Johnson Brigham,
State Librarian.

IOWA STATE LIBRARY MEDICAL DEPARTMENT

Equipment—The Medical Department has been equipped with card catalog cabinet, book truck, desk and chair for librarian, accession book, accession stamp, decimal classification, and all the other necessary tools for cataloging, independent of the General Library. The medical room has also been made as attractive as possible, by having the floor refinished, and covered with an attractive rug.

Accessions—There have been accessioned 1361 volumes, mostly gifts.

Cataloging—The library is being catalogued according to the Dewey Decimal system, with some modifications and expansions. The librarian spent a week at the John Crerar Library, Medical Department, studying their system and learning much therefrom. Up to date 1436 volumes have been cataloged, shelf-listed, plated, stamped, etc. and placed upon the shelves.

Drake Medical Library—After being stacked upon the floor for several years, and accumulating quantities of dust, the volumes of the library have been

placed upon shelves, arranged in order and an inventory taken. Record has been made of all books not found. Unfortunately many of the most desirable volumes did not reach the State Library. Many volumes were found to be duplicates of volumes already in the State Library. Where it seemed desirable duplicates were retained, but in most cases only those in best condition were retained. Up to date 470 volumes (not including periodicals) from this library have been re-cataloged, re-labeled, plated and stamped with the State Library stamp. Much re-cataloging has been necessary on account of inadequate cataloging in the beginning, and in view of the future growth of the library it has seemed wise to catalog very minutely.

Binding—Up to date 413 volumes, mostly periodicals and transactions of societies, have been sent to the bindery. Also a number of volumes have been re-bound and repaired, in order to make them again useful, and to present a satisfactory appearance on the shelves.

Gifts—A considerable amount of material has come to the library from various sources. All has been made record of, on cards, with the name of the donor. Much of the material however does not seem worthy of a place in the library, and is being held until it can be passed upon by some authority.

Periodicals—Since this department of the library is considered of first importance, considerable time and effort is being used to complete files of medical journals. The quantity of unbound periodical material coming from the Library Club has been sorted, listed, and complete volumes sent to the bindery. The process is slow, as considerable difficulty is found in completing certain volumes. Progress is being made however, and letters are being written daily in quest of the missing numbers. About forty medical journals are being currently received and checked. With the use of the "Index Medicus" and the "quarterly cumulative index to current medical literature" these periodicals are being made of great value for reference.

Loans and Inter-Library Loans—The John Crerar Library and the Medical Department of the State University have been very generous in loaning to us certain bound volumes not in our library. We have been able to supply some out of town requests for bound periodicals from our own shelves, and have been as generous as possible in our local loans. Our very incomplete files however, make reference work very unsatisfactory. Many calls are made for up-to-date books, and for latest editions of texts now on our shelves.

Lavinia Steele,
Acting Medical Librarian.

REPORT OF COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

Dr. Paul E. Gardner, Chairman, read the report of the Committee on Health and Public Instruction.

Dr. Small moved that the report be accepted, and that a vote of appreciation for the work done by Dr. Jeannette F. Throckmorton, be given. Seconded, and a rising vote was expressed.

The report follows:
It is with a great deal of pleasure, as well as honor, that we can make this report to the House of Delegates, and at the beginning we want to state that this report could not have been possible, only through the untiring work of one of the committee, namely, Dr. Jeannette F. Throckmorton.

Since June 1, 1919, she has given a total of 507 lectures reaching 68,560 women and girls, requiring 437¾ speaking hours.

She has spoken in seventy cities and towns in Iowa and also in the States of North Dakota, North Carolina, Louisiana, Wisconsin, and New York, and at present is on the Atlantic Ocean or probably landed in Belgium, where on May 20, 1920, at Brussels she will read a paper on "Fashions and Public Health" before the Royal Institute of Public Health.

Respectfully submitted,
Paul E. Gardner, Chairman,
Henry Albert.

REPORT OF THE FINANCE COMMITTEE

In the absence of the Chairman, Dr. C. P. Frantz, Dr. C. J. Saunders, read the report of the Finance Committee, which upon motion, duly seconded, was accepted.

The report follows:
Des Moines, May 13, 1920.
To the House of Delegates of the Iowa State Medical Society:

We, the Committee on Finance of the Iowa State Medical Society, hereby affirm that we have this day checked over the vouchers and audited the accounts of the Society as submitted by your Secretary and Treasurer, and find that they have been accurately kept and concisely presented to our committee for examination.

We are pleased to commend these officials in whose accounts we find no errors or omissions.
Respectfully submitted,
Chas. P. Frantz, Chairman,
C. J. Saunders,
J. W. Harrison.

NEW BUSINESS

Under the head of "New Business," the Secretary read the motion to amend the Constitution and By-laws that had been presented by Dr. W. B. Small at the second meeting of the House. To amend Chapter VI, Section 3 of the By-laws on second line striking out "\$10,000" and inserting "\$25,000;" under Section 4 of the same Chapter, the latter part of the Secretary's bond by striking out "\$10,000" and inserting "\$25,000."

Dr. Small moved that the motion be adopted. Dr. Duhigg moved to amend the motion by inserting

"\$20,000" as the amount of the Treasurer's bond and "\$5,000," amount of Secretary's bond; amendment was duly seconded and carried. The original motion as amended, having been duly seconded, was put and carried.

The report of the Committee on Standard Charge bill for Medical and Surgical Skill, was read by Dr. Thos. F. Duhigg, Chairman.

The report follows:

Resolution—Standard Charges for Medical and Surgical Skill

Whereas, The general cost of living has advanced tremendously in the last six years as shown by the following figures taken from the March report of the U. S. Bureau of Labor Statistics for January of this year, using 100 for the pre-war period, the increase being represented by the following figures:

Farm products.....	246
Food	253
Lumber and building materials.....	268
Household furnishings	324
Clothing	350

And Whereas, This affects directly every physician practicing in the State of Iowa whose largest items of expense are included in the above mentioned list, and

Whereas, The standard charges for medical and surgical skill have not advanced in the same proportion in most communities, and

Whereas, The fees allowed by fraternal insurance companies as well as a few old line insurance companies, railroad companies, and the fees allowed under the terms of the workmen's compensation law are intolerably inadequate at the present time when prices in general have doubled, trebled, or quadrupled, be it

Resolved, That the Iowa State Medical Society recommends that the question of standard charges for medical and surgical skill be considered by every county society in the state.

In view of the general advance in the prices of all commodities, it is recommended that the standard charge for house and institution visits be made \$5, or that they be advanced in the same proportion as the general advance in all commodities, and that the minimum advance, should be not less than 100 per cent more than the standard charge in the pre-war period.

It is urgently recommended that a charge of \$5 be made for all civil service examinations and for all examinations for insurance companies, including fraternal insurance companies; that signed documents and services in court be charged for at a rate commensurate with the responsibilities which they imply. A reasonable fee for signed documents should never be less than \$5, and a reasonable fee for services in court, where careful preparation is necessary, should not be less than \$25.

It is Recommended, That a concerted movement be instituted in the profession to compel railroad

companies and fraternal insurance companies to elevate the fees allowed for medical and surgical skill in the same proportion that prices have advanced during the past six years, and that the work done for railroad companies and fraternal insurance companies shall be charged for on the same basis and on the same respectable standard that applies to other concerns and individuals.

It Is Further Recommended, That a united effort be made to revise the workmen's compensation law and expand its provisions until justice is done to every party to the transaction, including the physician whose services are the most important in the calculation. In these times the maximum allowance of \$100 for the care of an injured man for one month is insufficient to pay the hospital charges, in some communities, leaving the physician nothing. It is recommended that the maximum period of benefit under the workman's compensation law be extended to at least two months, and that the maximum allowance be at least \$500.

We recommend that all contract practice not approved by the American Medical Association be discontinued by members of this Society.

Thos. F. Duhigg, Chrm., Des Moines,
J. H. Schrup, Dubuque,
C. J. Saunders, Fort Dodge.

After reading the report, Dr. Duhigg moved its adoption. An amendment was made that the Secretary be instructed to send a copy of these Resolutions to the Secretary of every Component County Medical Society in the state. Seconded and carried.

The original motion to adopt the report, as amended, was duly seconded and carried.

Dr. M. N. Voldeng moved that the Committee on Constitution and By-laws be instructed to revise, codify the Constitution and By-laws and suggest such amendments as with the assistance of the Secretary, shall be deemed necessary, such report to be presented at the next annual meeting. The motion being seconded by Dr. Paul Gardner, was put and carried.

Dr. Duhigg presented the following Resolution:

Resolved, That the Iowa State Medical Society urge that through legislation or promulgation the units of the metric system of weights and measures be made the exclusive legal standards within the jurisdiction of the United States of America. After reading the Resolution, Dr. Duhigg moved its adoption. Seconded and carried.

The following Resolution was presented by Dr. Duhigg:

Whereas, The question of adjusted compensation for ex-service men is now being determined by committees of Congress, who apparently feel that this is necessary and proper legislation because of the disproportionate financial loss sustained by those who were in service, and

Whereas, Their recommendation is that the adjusted compensation shall not apply to officers, and

practically all members of the medical profession served as officers, and

Whereas, Officers of the medical service almost without exception served at great financial loss to themselves because the salary they received was much below their regular earning capacity, and because of the disorganization of their business by prolonged absence in the service, this loss will be felt throughout the years which it will take to regain the practice and income which they enjoyed before entering the service, and

Whereas, The loss sustained by members of the medical profession who entered the service was greater than that sustained by those in most other lines of activity because the doctor's work cannot be delegated to any one else as is the case in commercial lines, therefore be it

Resolved, That the Iowa State Medical Society protests the proposed exemption of officers from the operation of the proposed legislation on adjusted compensation believing that if adjusted compensation is to be granted, it should include officers as well as men, and should apply equally without reservation or discrimination against any class or group, and be it further

Resolved, That a copy of this resolution be forwarded to United States Senators and Representatives of Iowa.

After reading the resolution, Dr. Duhigg moved its acceptance. Seconded by Dr. Luckey, and unanimously carried.

At 9:50 a. m. the House of Delegates adjourned sine die.

Tom B. Throckmorton,
Secretary.

MINUTES OF THE COUNCIL OF THE IOWA STATE MEDICAL SOCIETY, SIXTY- NINTH ANNUAL SESSION, MAY 12, 13, AND 14, 1920

The Council met with the House of Delegates, May 12. Secretary G. C. Moorehead's report for the year was read and filed with Secretary Tom B. Throckmorton. Delegates from various districts met and transacted business connected with their district.

The term of office of Councilor of the first and eleventh districts having expired an election was held in these groups and Dr. R. S. Reimers was elected as Councilor for the first district and G. C. Moorehead for the eleventh district and so reported to the Society. Meeting adjourned.

The Council met Thursday, May 13, in room 322 of Hotel Fort Des Moines, all members present. Dr. Paul Gardner was elected Chairman and Dr. G. C. Moorehead, Secretary. There was free discussion of how to maintain interest in county societies and it was the judgment of all for Councilors to go into counties where society work was failing or had ceased and endeavor to get these societies to combine with adjacent counties and form district societies.

The holding of clinics and special meetings was considered advisable, each Councilor to arrange these meetings for his own district. Meeting adjourned.

Paul E. Gardner, Chairman,
G. C. Moorehead, Secretary.

OFFICERS AND COMMITTEES OF THE
IOWA STATE MEDICAL SOCIETY
1920-1921

President.....	Donald Macrae, Jr., Council Bluffs
President-Elect.....	Alanson M. Pond, Dubuque
First Vice-President.....	Campbell P. Howard, Iowa City
Second Vice-President.....	James W. Osborn, Des Moines
Secretary.....	Tom B. Throckmorton, Des Moines
Treasurer.....	Thos. F. Duhigg, Des Moines
Editor.....	David S. Fairchild, Sr., Clinton

COUNCILORS		Term Expires
First District—R. S. Reimers, Ft. Madison.....		1925
Second District—Henry Albert, Iowa City.....		1922
Third District—W. A. Rohlf, Waverly.....		1921
Fourth District—Paul E. Gardner, Chairman, New Hampton.....		1924
Fifth District—Geo. E. Crawford, Cedar Rapids.....		1923
Sixth District—O. F. Parrish, Grinnell.....		1923
Seventh District—Channing G. Smith, Granger.....		1924
Eighth District—Samuel Bailey, Mt. Airy.....		1924
Ninth District—A. L. Brooks, Audubon.....		1922
Tenth District—W. W. Beam, Rolfe.....		1921
Eleventh District—G. C. Moorehead, Secretary, Ida Grove.....		1925

TRUSTEES		
J. W. Cokenower, Des Moines.....		1922
W. B. Small, Waterloo.....		1921
T. E. Powers, Clarinda.....		1923

DELEGATES TO A. M. A.		
W. B. Small, Waterloo.....		1921
L. W. Dean, Iowa City.....		1922
W. L. Allen, Davenport.....		1922

ALTERNATE DELEGATES		
W. W. Bowen, Fort Dodge.....		1921
M. J. Kenefick, Algona.....		1922
J. H. Peck, Des Moines.....		1922

COMMITTEES		
MEDICO LEGAL		
D. S. Fairchild, Sr., Clinton.....		1921
H. B. Jennings, Council Bluffs.....		1922
Lewis Schooler, Des Moines.....		1923

SCIENTIFIC WORK		
Donald Macrae, Jr.....	Council Bluffs	
Tom B. Throckmorton.....	Des Moines	
Thos. F. Duhigg.....	Des Moines	

PUBLIC POLICY AND LEGISLATION		
J. W. Cokenower.....	Des Moines	
B. L. Eiker.....	Leon	
J. W. Harrison.....	Guthrie Center	
Donald Macrae, Jr.....	Council Bluffs	
Tom B. Throckmorton.....	Des Moines	

HEALTH AND PUBLIC INSTRUCTION		
Paul E. Gardner, New Hampton.....		1921
Jeannette F. Throckmorton, Chariton.....		1923
Henry Albert, Iowa City.....		1922

CONSTITUTION AND BY-LAWS		
V. L. Treynor.....	Council Bluffs	
Wm. Jepson.....	Sioux City	
D. C. Brockman.....	Ottumwa	

PUBLICATION		
D. S. Fairchild, Sr.....	Clinton	
W. L. Bierring.....	Des Moines	
C. P. Howard.....	Iowa City	

FINANCE		
C. P. Frantz.....	Burlington	
C. J. Saunders.....	Fort Dodge	
E. C. McClure.....	Bussey	

ARRANGEMENTS		
Donald Macrae, Jr.....	Council Bluffs	
Tom B. Throckmorton.....	Des Moines	
Thos. F. Duhigg.....	Des Moines	
Two members from Polk County Medical Society.		

MILITARY SURGEONS MEET

Surgeon J. W. Kerr of New York of the United States Public Health service, was elected president. Other officers elected were: first vice-president, Captain F. L. Pleadwell, Medical Corps, United States Navy, Naval War College, Newport, R. I.; second vice-president, Colonel Charles Lynch, Medical Corps, United States Army, assistant to Surgeon General Rupert Blue, Washington, D. C.; third vice-president, Colonel D. S. Fairchild, Medical Reserve Corps, United States Army, Clinton, Iowa, and secretary-treasurer, Colonel James Robbchurch, Washington, D. C., re-elected.

Washington, D. C., New York, Chicago and San Francisco were the most formidable contenders for the 1921 convention. The place will be decided at a meeting later of the executive committee, with Washington, it was conceded, most likely winner.

Colonel Frank Billings of Chicago, Medical Reserve Corps, United States Naval, led the discussion on rehabilitation of disabled ex-service men, stressing the justice and wisdom of the work carried on by the government through its vocational educational boards.

That recent wholesale criticisms of the functioning and efficiency of the board is for the most part unfounded was the consensus of opinion of the speakers. The work as a whole is above criticism and quite commendable, declared Colonel Billings.

“Of course,” declared the speaker, “it is not a difficult matter to find some cases meriting criticism. But these are isolated instances. It should be remembered that the board has had a stupendous job on its hands and everything was new. But in what vast organization can you not find a number of unfortunate instances? The cases complained of about the efficiency of the vocational boards are not typical of the great and valuable work they are earnestly doing for the rehabilitation of the host of unfortunate warriors who suffered wounds and injuries of every conceivable character in the great struggle.”

MARRIAGES

Dr. C. H. Armstrong of Preston and Miss Ella Heit, also of Preston.
Dr. A. D. Woods of State Center and Mrs. Katie Stole of Fontanelle.
Dr. John W. Thornton of Lansing and Miss Blanche O'Donnell of Chicago.

SOCIETY PROCEEDINGS

Butler County Medical Society

The semi-annual meeting of the Butler County Medical Society was held in Allison, Thursday afternoon and a dozen professional men from various parts of the county were in attendance. A number of important matters were brought up for discussion and a very profitable meeting is reported. The society endorsed the work being undertaken by the county Anti-Tuberculosis Society and planned to assist in putting on a clinic at the county fair in September. Officers for the ensuing year were elected as follows: Dr. D. N. Reeve, Allison, president; Dr. John Nevins, Greene, vice-president; Dr. M. B. Nevins, Greene, secretary-treasurer.

Fremont County Reorganizes

A number of the leading physicians of the county met at Sidney for the purpose of reorganizing. Dr. J. E. Miller of Tabor was elected president; Dr. Ralph Lovelady, vice-president; Dr. A. E. Wanamaker of Hamburg, secretary-treasurer. The next meeting will be in June.

Fremont County Medical Society

A few years back this county had a flourishing and very helpful organization known as the Fremont County Medical Society, which seemed to automatically die out while the doctors were engaged in the various phases of war work. April 28 a number of the leading physicians of the county met at Sidney for the purpose of reorganizing. Dr. J. E. Miller of Tabor was chosen president, Dr. Ralph Lovelady vice-president, and Dr. A. E. Wanamaker of Hamburg, secretary. Dr. Wanamaker and Dr. T. C. Cole were elected delegates to the state convention.

Kossuth County Medical Society

The Kossuth County Medical Society at a meeting held in April elected Dr. R. M. Wallace of Algona, president; Dr. Sartor of Titonka, vice-president; Dr. M. J. Kenefick of Algona, secretary and treasurer.

Kossuth County Medical Society

Kossuth county physicians and surgeons have raised their prices. Every fair-minded person will agree that these sacrificing and high-minded men are deserving of increased fees. The new minimum schedule of fees was adopted at a meeting of the county medical society in Bancroft May 4.

Hereafter office consultation will be \$1 during the day. Night consultation at the office—9 p. m. to 7 a. m. will be \$3. A town visit will be \$2 during the day and \$3 at night. Country visits will be the same as town plus \$1 a mile. The fee for wayside calls during the day is \$2 and night stops are \$3. The fee for all life insurance examinations, including fraternal, will be \$5.

There are something like 125 different fees in the new schedule just issued by the county society.

Minimum charges for surgery range all the way from \$1 for the extraction of foreign body from eye, ear, nose or throat, to \$150 for a major operation.

The charges for obstetrics are as follows: Normal labor, plus \$1 a mile, \$25; detention after four hours, \$2 an hour; instrumental delivery, low, \$35; instrumental delivery, high, \$50; immediate repair of lacerated peritoneum, \$5.—Swea City Herald, Advance, Algona.

Lee County Medical Society

The semi-annual meeting of the Lee County Medical Society held one of its best meetings of its history May 6. Fifty-one guests, including the local and visiting physicians, and members from the Visiting Nurse Association of Lee county, attended the banquet held at Hotel Iowa.

Tuberculosis was the topic on which special stress was laid at the conference yesterday and Dr. H. V. Scarborough, superintendent of the state sanitarium at Oakdale, and Dr. A. E. Kepford, state lecturer, both appeared on the program. Dr. Kepford, who has recently received a promotion to be superintendent of the state juvenile home at Toledo, Iowa, gave a thirty minutes lecture on the preventative means to be used in the care of tuberculosis, with special reference to treatment of cases with cattle and hogs.

Lee County Medical Society

Officers of the Lee County Medical Association: President, Dr. Thomas Bess, Fort Madison; vice-president, Dr. J. F. Thompson, Donnellson; secretary and treasurer, Dr. Will Rankin, Keokuk.

Visiting Nurse Association, Keokuk, Iowa: President, Mrs. C. M. Rich; secretary, Mrs. Mary Irwin.

Nurses—Marquerite Hincke, Maude Brown, Marianna Zichy, Marguerite Sollars, Blanche Sharp.

Visiting Nurse Association, Fort Madison, Iowa: Mrs. George Anthes, president King's Daughters Union; Mrs. W. B. Frederick, chairman, Nursing Committee, King's Daughters; Mrs. D. P. Glazier, secretary Red Cross. Nurses—Miss Emily Vaugenieux, Mrs. Frank Ekins, Mrs. Carrie Ball.

Palo Alto County Medical Society

The Palo Alto County Medical Society met in the city hall Wednesday afternoon, April 28. Dr. Baldwin of Ruthven read the principal paper.

Plymouth County Medical Society

The Plymouth County Medical Society met in Le Mars, Monday evening, May 10. This was one of the best meetings in the history of the society; from three towns, every doctor was present. An important feature of the meeting was the adoption of a uniform county fee bill.

The scientific program was: Pneumonia, Dr. George Mattison of Akron. Acidosis, Dr. Wm. T. Sheppard, Le Mars. Perforating Gastric Ulcer, Dr.

J. M. Fettes, Le Mars. Adjournment to meet in Merrill June 1, 1920.

Poweshiek County Medical Society

The Poweshiek County Medical Society held their spring meeting Tuesday evening, April 27 at the Community Hospital. This was a meeting featuring the uses of a laboratory to the practicing physician. The meeting was addressed by Dr. Henry Albert, director of the State Board of Health Laboratories at Iowa City. Short addresses were also made by Dr. E. S. Evans of this city and Miss Vivian Shumway, director of the local laboratory. The meeting was well attended and of unusual interest throughout. Following the meeting an inspection of the laboratory was had by the visiting physicians, all of whom were enthusiastic in their praise of the fine equipment and of the work done. After the literary part of the program the wives of the members of the hospital staff served a banquet in the nurses' dining hall. The banquet was an unexpected part of the program, but none the less a most agreeable one.

Visiting physicians were: Doctors Simeral, Ringena and Busby of Brooklyn. The guests of the evening were Dr. Henry Albert of Iowa City, and Dr. C. E. Harris of Woodman, Colorado. Most of the local physicians were in attendance.

Ringgold County Medical Society

At a meeting of the Ringgold County Medical Society held on May 5, the following officers were elected: President, Wm. Horne, M.D.; vice-president, S. W. DeLong, M.D.; secretary-treasurer, Samuel Bailey, M.D.; censor, one year, E. J. Watson, M.D.; censor, two years, M. F. Hannelly, M.D.; censor, three years, J. W. Hill, M.D.; delegate to state meeting, Samuel Bailey, M.D.; alternate to state meeting, J. W. Hill, M.D.

Ringgold County Medical Society

The Ringgold County Medical Society held a tuberculosis and children's clinic at Mount Ayr on Tuesday, June 1. This was the first move of this kind that has been made in this county.

Dr. A. E. Kepford, state lecturer on tuberculosis was present, and the proceedings were under his management; he was assisted by Dr. J. H. Peck, a specialist on tuberculosis, from Des Moines, and these were assisted by the county nurse, Miss Stallard and Mrs. Payne a specialist from the Iowa Tuberculosis Society and other trained nurses. There was a large attendance of doctors from all parts of the county and quite a number from other counties. There was a total of fifty-six children examined for physical defects. Fifteen were examined for tuberculosis but few cases of true tuberculosis were found. Dr. Kepford pronounced the meeting a very successful one.

Wayne County Medical Society

Wayne County Medical Society met in Corydon in

semi-annual session, April 29. Program: Placenta Previa with Report of Case, Dr. U. L. Hunt, Seymour. Focal Infection, Dr. E. E. Bamford, Centerville. Treatment of Fractures in the Army, Dr. Corbin, Millerton. A Paper by Dr. H. T. Smith, Humeston.

The officers are as follows: President, Dr. A. E. Davis, Seymour; secretary-treasurer, Dr. W. G. Walker, Corydon. Board of censors: Drs. P. S. Walker, S. W. Hinkle, U. L. Hart.

The Physicians' Club of Keokuk held its regular meeting at 6 o'clock in the private dining room of the Y. W. C. A., where dinner was served.

PERSONAL MENTION

Dr. D. C. Snyder has formed a partnership with Dr. Hand.

Dr. B. L. Scarborough of Oakdale had the misfortune to fall and fracture his hip recently.

Dr. R. C. Herrick of Gilmore City has formed a partnership with Dr. Donnelly, a recent graduate from the medical school of Iowa State University.

Dr. T. A. Mahler, a graduate of Iowa State University Medical School, has located in Bancroft.

Dr. J. C. Ross of North English is being considered for the Republican nomination of representative.

Dr. Walter W. Dant was unanimously re-elected physician of the board of health for Muscatine.

Dr. D. J. Chinn was appointed health officer of Bettendorf.

Dr. P. G. Grimm has been appointed surgeon for the C. M. & St. Paul Ry. Company at Spirit Lake.

Professor Rontgen, the discoverer of the x-ray, who has reached the age of seventy-five, is reported to have resigned from his post as lecturer at Munich University and as director of the Physical Institute.

Miss Lillian Prentiss, daughter of Dr. and Mrs. H. J. Prentiss, Iowa City, won the honor of painting the best figure in the life class at the New York Academy of Design which she is attending in New York City.

Dr. M. J. Moes was appointed as a member of Dubuque County's Sanitary Commission by the District Court recently to fill the vacancy caused by Dr. W. L. Becker. The appointment of Dr. Moes was approved by both Judges J. W. Kintzinger and D. E. Maguire. Dr. W. L. Becker has taken a leave of absence until this coming winter.

Fifty years ago May 1 Dr. and Mrs. D. S. Fairchild were married in High Forest, Minnesota, but they do not anticipate any unusual observance of the event said Mrs. Fairchild when questioned. Her husband will not return to the city until May 1, and her family is scattered, one daughter, Mrs. Brown of Davenport, and their son, D. S. Fairchild of Clinton, but Mrs. Reynolds, the other daughter in Georgia. Dr. Fairchild began his practice fifty-one years ago May 1 and as young people he and his bride knew the celebrated Doctors Mayo for their home was

fifteen miles from Rochester, Minnesota. The friendship of youth has continued through all these fifty years.

Dr. C. G. Morehouse has disposed of his local practice to Doctors Svebakken & Rominger of Waukon, and Dr. Morehouse and family will leave Waukon to attend Harvard University for a post-graduate course. The Doctor is taking advantage of opportunities presented by the U. S. Government in making this move, as the government pays all expenses of the course in recognition of services in the World War. Dr. Morehouse served for several months overseas with a medical corps, was wounded once and saw a great deal of the activities at the front.

Dr. Blything, Davenport's newly appointed city physician, is forty-four years old. He was born in Terre Haute, Ind., in 1876. He attended the University of Indiana where he obtained the degree of Bachelor of Arts. Later he completed a course at Rush Medical College, Chicago. Dr. Blything located in Bettendorf in 1907. He was a member of the Scott county exemption board, resigning this position to enter the service in 1918. He was stationed at Base Hospital No. 88 in France. On his return from France last September Dr. Blything located in Davenport. He has since been practicing in this city. His office is located in the Schmidt building.

Dr. Ross Golden, a major in the army, has been discharged from service. He goes to Massachusetts General Hospital, Boston, where he will be interne. Dr. Golden is the son of the late Rev. A. L. Golden.

Dr. and Mrs. Granville Ryan entertained recently at dinner at their home in honor of thirty representative diagnosticians attending the State Medical Convention. The guest list included: Dr. E. W. Williamson, Sioux City; Dr. J. Shuman, Sioux City; Dr. Koch, Sioux City; Dr. A. O. Dunn, Omaha; Dr. Lamb, Davenport; Dr. Van Epps, Iowa City; Dr. F. M. Fuller, Keokuk; Dr. V. L. Treynor, Council Bluffs; Dr. M. Heizberg, Sioux City; Dr. F. G. Murray, Cedar Rapids; Dr. J. W. Rowntree, Waterloo; Dr. E. T. Edgerly, Ottumwa; Dr. C. F. Field, Fort Dodge; Dr. H. W. Decker, Davenport; Dr. Biefield, Iowa City, and the following of Des Moines: Doctors J. H. Peck, J. T. Strawn, Thomas Burcham, Charles Ryan, J. F. Auner, R. Doolittle, D. J. Glomset, and J. Weingart. After dinner the guests enjoyed a theater party at the Orpheum.

Dr. Granville Ryan entertained a number of state and local physicians at luncheon recently at the Des Moines Club, complimentary to Dr. Charles Mayo of Rochester, Minnesota. Included in the courtesy were Dr. Macrae of Council Bluffs, president of the association; Dr. Allen of Davenport, former president; Dr. Pond of Dubuque, president-elect; Dr. Brockman of Ottumwa; Dr. Fairchild, Sr., of Clinton; Dr. Volding, Woodward; Dr. James, Centerville; Dr. Rolfe, Waverly; Dr. Fuller, Keokuk; Dr. Powers, Clarinda; Drs. C. Rockafellow, Wilton McCarthy,

Charles Ryan, R. A. Weston, Oliver J. Fay, and Howard Gray of Des Moines.

Favoring the stand which Dr. J. W. Kime, candidate for Republican nomination as state representative, has taken upon all of the important questions of the day, along the lines of industrial betterment and declaring that Webster county must be represented in the legislature next winter by a man who is not afraid to take a stand and have the ability to maintain that stand, the Webster County Medical Society recently passed resolutions favoring the candidacy of Dr. Kime and pledging their united support. The medical society also pledged their support to the "open shop" policy for Fort Dodge as adopted by the Commercial Club.

Dr. Jennie McCowan, for more than a quarter of a century past house physician at the Clarissa C. Cook Home for the Friendless, has resigned that position and her resignation was accepted with regret by the board of trustees. During her entire services at the home Dr. McCowan has given the institution her best efforts and her retirement will be universally regretted by the management and inmates alike.

Dr. Lenna Means, who has been spending the last six months in New York is expected home Monday to remain until after the biennial convention. Dr. Means has recently been lecturing in Virginia on public health and has just now been preparing programs for use in rural schools.

Dr. W. P. Hofmann, eye, ear, nose and throat specialist, has opened an office at 501 Putnam building, Davenport, and will practice in Davenport. Dr. Hofmann graduated from the college of medicine at the Iowa State University in 1918. He received his liberal arts degree in 1916. He spent a year at Montreal, Canada, where he was engaged in interne work. For the past year he has been in New York City.

Dr. H. D. Chamberlin leaves Nevada on Tuesday for Woodman, Colorado, twelve miles from Colorado Springs, where he will spend some time with his daughter, Mrs. Dr. Roy E. Brown. Dr. Brown is at the head of the laboratory of the Modern Woodmen Sanitarium, which is located at Woodman. Dr. Chamberlin is leaving Nevada after thirty-four years continuous residence here, the majority of which time he has been engaged in the practice of his profession, from which he retired when his advanced age made it advisable. His son Dr. Harry Chamberlin is now located at Los Angeles, having but a short time ago been released from the navy where he spent two years or more as a surgeon. His youngest daughter, Miss Alice Chamberlin left here a few weeks ago for Ceylon, and is by this time located in some point in China as a missionary. Dr. Chamberlin's many friends in Nevada will wish him well in his new surroundings and hope that everything of the best comes his way.

Dr. and Mrs. Frank Ely left yesterday for the woods of northern Wisconsin, where they will spend about six weeks hunting and fishing. On their re-

(Continued on Adv. Page xviii)



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PERSONAL MENTION

(Continued from Page 256)

turn Dr. Ely will spend some time observing hospital work in Chicago and Rochester.

Approximately thirty Dubuque physicians and their wives will entertain at the Hotel Julien Friday night at dinner for Dr. William Mayo and a party of distinguished physicians and surgeons who will arrive in Dr. Mayo's cruiser from Rochester this afternoon. It will be an entirely informal affair according to physicians who will be present. The grill room of the Julien will be the scene of the dinner and arrangements for seventy covers have been made. With Dr. Mayo are Dr. Hugh Young of Baltimore, professor of medicine at the Johns Hopkins University and one of the physicians called into consultation during President Wilson's illness; Dr. Bentley Squiers of New York City, noted surgeon, and Dr. Belfast of Chicago, and others noted in the profession of medicine.—Dubuque Journal, June 5.

Dr. Alvah Negus, Keswick, Iowa, has recently received his honorable discharge from the army after two and one-half years service in the Medical Corps. He has had a varied and extended experience in different hospitals and in travel and study. He went overseas with Base Hospital Unit No. 131, when it ceased to function and returned to America, he was

transferred to Base Hospital No. 106, at Bean Desert, which was the contagious unit of that center. At U. S. A. General Hospital No. 28, Fort Sheridan, Illinois, where he was last stationed, he was at the head of the section of communicable diseases. He has resumed general practice again with Dr. Cora Negus, his wife, who continued in active practice in the home community during his absence.

Dr. G. R. Neff of Farmington celebrated the fiftieth anniversary of active medical practice recently. Dr. Neff was born in Palestine, Ohio, June 13, 1846. Graduated from the College of Physicians and Surgeons, Keokuk, February 21, 1870 and began practice in Farmington.

Dr. A. C. Brown formerly of Omaha has located in Stuart. Dr. Brown was at one time associated with the late Dr. Allison.



Dr. Roy R. Jones, an alumnus of the Iowa University College of Medicine, has opened offices in Iowa City.


In celebration of their fifty-fifth wedding anniversary Dr. and Mrs. R. U. Chapman of Des Moines entertained at a family reunion.

Dr. Josephine Rust has moved to Mason City. Dr. Rust was recently school physician at Fort Dodge.

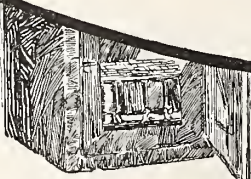
A partnership has been formed between Dr. A. C. Brown of Council Bluffs and Dr. I. F. Crosby of Stuart under the name of Crosby and Brown.

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The Journal of the Iowa State Medical Society

VOL. X

DES MOINES, IOWA, AUGUST 15, 1920

NO. 8

ORATION IN SURGERY*

D. S. FAIRCHILD, JR., M.D., F.A.C.S., Clinton
Late Colonel and Surgeon-in-Chief 42nd (Rainbow) Division

*Mr. President and Members of the Iowa State
Medical Society:*

Permit me to express my appreciation of the honor in asking me to deliver the annual address in surgery. I fully realize this should have gone to one on some subject in general surgery, and for me to accept this place on the program after four years of continual service in a field army, I must request your forbearance in dealing with a special branch of surgery, in which all surgeons may be more or less interested, especially those in traumatic surgery. As such, I shall refer to some experiences of the medical officer in the battle zone, hoping some of its application may be employed in civil practice for I believe one experienced in war surgery, may rightly claim great benefit in traumatic surgery which he may be called upon to do. While it is not believed, however, that the accepted principles of surgery have been changed in any material way in the treatment of wounded, yet the great problem was the handling of casualties in such great numbers with limited facilities for evacuation and hospitalization and the consequent increased elements in combating shock, hemorrhage, and infection. In order to reduce this to the least possible degree, it becomes necessary to have a thoroughly, well organized system, coordinating and correlating the services into one big medical machine; and while some over zealous individual medical officers may have felt they had lost their initiative in usurping their individual ideas, yet, without law and order, great disaster would have fallen in decentralizing action, or division of authority and responsibility.

Time will permit of but a few references to the many details in complementing such a medical force, its personnel or their duties but merely present the part we of the medical profession shall play as our contribution in case of actual hostili-

ties and while our last duties may have been performed in a creditable or fairly creditable manner, yet some are now saying, "The war is over and let us forget it." I, for one, do not take such a position for who can say the medical profession may not at any time again be put into the field of action to administer relief, and it appears to me it would be well for us to always keep in mind medical organization for if we do not take care of the sick and wounded, who will?

During the past year so much has been written and told of the work done by the surgeons in the world's great war, one would think by now that all phases of medical and surgical activities must have been thoroughly presented, but to the medical officer, who was privileged to have service in the battle zone, it is not believed it has, for the reason that the surgeon only who has experienced a tour of duty with the fighting troops will ever understand or appreciate the trying problems confronting him to his wits end, and with the utter impossibility to collect and retain sufficient data, can the picture be portrayed or statistics made to draw definite rules in forming conclusions in theory or practice for the handling and caring of the wounded, and the more one has been engaged the more convinced of the fact he is. Never were two engagements identical, consequently medical tactics must change to conform with military logistics, it therefor becomes just as important for a medical officer to possess a knowledge of military strategy if he is to be successful in winning his objectives as any other professional arms of the service are. Why not, for instance, the engineers? The signal service do not fight but make it possible for fighting men to fight, so it is with the medical department in salvaging the nation's greatest asset, its men back on the line to fight again. For one to intimate it does not require a high grade professional man to do this, discredit himself, does injustice to the profession and to the soldier, and no one knows it better than the fighting man himself. A very serious mistake, shown by a certain class of surgeons in this war, was assuming that all field surgeons were sort of first aid ambulance surgeons. As

*Presented at the Sixty-Ninth Annual Session, Iowa State Medical Society, May 12, 13, 14, 1920, Des Moines, Iowa.

time progresses and the medical histories of combat division come into their own, these very uncharitable offenders will discover that not only were these field surgeons many times displaying the same professional skill to the wounded, but also to that class of wounded known as the non-transportables, in a very creditable manner saving many lives that would otherwise have been lost in an attempt to reach the hospitals in the rear, which in nearly every engagement were from thirty to sixty and even one hundred kilometers; so it is for this reason this paper will confine itself to the patient, from the time he was wounded, as it is believed surgery commences at that time and not when the man is operated upon as most statistics indicate. In other words, what about the patient from the time he is injured until he is in the semi-mobile or evacuation hospital? It is true that surgery is a very important part of the medical officer's duty in war, but is it the all important? It is believed in performing its high function, the medical department must in the first instance prevent in every possible manner the waste or abuse of this human material by, the employment of sanitary and hygienic precaution as well as of humanitarian, economic and tactical consideration, to fulfill the necessary requirements of his mission.

The morale of fighting men is probably the greatest factor to victory, and every one knows they will fight with much better spirit if they know that efficient medical service is close at hand from which they will receive prompt and skillful treatment for early restoration. Such service always earns esteem and gratitude and has therefore a great moral and disciplinary as well as physical value. To do this the medical officer must have the confidence of the commanding officer, and to get that he must demonstrate by courage and by sensible reasoning and insisting in its performance, thoroughly understanding his ground, responsibility and eventual authority.

It is a well established and recognized fact that the medical officer who fails in this will in a very short time lower the fighting efficiency of his command 50 per cent or even more, not only from men lost from preventable disease, but also from lowered vitality and morale of those remaining.

Chiefly among these things only reference to a few of his duties is here made without going into details.

a—Airspace and ventilation in quarters. b—Sleep. c—Warmth, dryness and comfort. d—Messing. e—Personal cleanliness. f—Vermin. g—Flies, mosquitoes and fleas. h—Venereal diseases. i—Physical inspections. j—Isolation of

communicable diseases. k—Anti-gas protection. l—Water. m—First aid. n—Maintenance sanitary conditions. o—Prophylactic serums. p—etc., etc., etc.

But here we will take up the evacuation and care of the wounded. In order to form some idea of work carried on by the medical department of a division, which in itself is a self-sustaining expeditionary force and comprising in its units a complete medical force representing all branches of medical science.

On the staff of the chief surgeon is his assistant, the sanitary inspector with his assistant, under whose supervision comes the chemist, bacteriologist, and pathologist. Medical supply officer, chief dentist and commanding officer of sanitary trains. Also all the consultants and specialists belonging or attached to the division.

The sanitary train comprises all personnel and equipment belonging to the field hospitals and ambulance companies, four of each. All else is assigned direct to regiments and battalion organizations. In round numbers one hundred thirty-five officers, fourteen hundred men in the medical department of a division.

The medical equipment of the division is designed to meet the needs of the division in combat and should generally do so if kept intact and in good order and efficiently handled.

The division in combat, is responsible for the evacuation of wounded only so far as its own field hospitals. Its ambulances should not be sent farther to the rear and perhaps lost to the division at a time when they are needed at the front. Divisional ambulances are occasionally so employed, however, when this does not interfere with their proper duty. Yet in this war the Division was compelled in practically every instance to not only haul to the hospital in the rear as far as one hundred twenty-five kilometers in some cases, but in many instances peddle patients for the evacuation hospital in the rear.

ATTACHED MEDICAL TROOPS

The medical personnel attached to a regiment includes medical officers, dental surgeons and enlisted assistants. The senior medical officer is called the regimental surgeon. The regimental medical personnel remains at all times with the organization, performing all medical, sanitary or dental service required.

The enlisted personnel of the regimental medical detachment perform during combat the duties of assistants to the medical officers, and serve as dressers and litter bearers in the forward zone. There should be at least two dressers for each combatant company, specially trained men who

can apply simple dressings and splints and check hemorrhages. The litter bearers of attached personnel transport the wounded no farther to the rear than the aid station or designated collecting point. If further carry by litter is necessary it is performed by the bearer section of the ambulance company. In each combatant company there should be a number of men, at least eight, who have been specially selected and trained as litter bearers and in the administration of simple first aid.

EVACUATION AND TREATMENT OF SICK AND WOUNDED

The system of evacuation of the medical department aims to remove all sick and wounded to the proper medical department station where they can receive such attention as their condition demands in time to insure their ultimate recovery and reduce their convalescence to the shortest possible period. Experience indicates that the shorter the time of evacuation, the greater the chance of recovery, provided the vitality of the patient is maintained during transport.

This evacuation is accomplished by a series of relays between stations progressively better equipped, and consequently less mobile, from front to rear. At the forward stations the wounded receive only such treatment as necessary to insure their safe transport and arrival in proper condition at the stations in the rear, where complete treatment is administered.

The treatment at the forward stations depends according to the condition of the patient. The desperately wounded, who are in no condition to undergo a long journey, but require immediate surgical treatment, are operated upon at the forward surgical station. Their number ordinarily does not exceed 1 per cent of all wounded. Those who can endure the journey are given preliminary treatment only at the forward stations, and evacuated promptly to the surgical stations in rear.

At each station the sick and wounded are sorted according to the nature and degree of their disability, the nature and urgency of the treatment to be administered, and the class of transportation required; and then distributed to the stations in rear.

The number, class and distribution of stations vary considerably with the tactical situation, the number of casualties to be handled and the transportation facilities. In times of stress it may be necessary to reinforce the facilities at all stations as well as means of transportations between them. In any case the stations, and especially the mobile forward stations, should not be established

unless it is quite evident that they are actually required. Prior to this a number of them are held in reserve, mobilized, to meet emergencies.

NUMBER AND CLASSIFICATION OF CASUALTIES

The following approximate figures, based on the experience of the European war, will serve as a guide in estimating the number and classification of casualties to be expected under various conditions.

The casualties resulting from a day of battle may run as high as 20 per cent. A division which has lost 25 per cent of its effectives should generally be relieved from the first line.

These casualties may be very roughly classified as follows:

Dead	20%
Gasses, sick and exhausted.....	25%
Seriously or moderately wounded.....	18%
Slightly wounded	37%
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Total.....	100%

A slightly wounded man is one who has no injury to an important organ or large joint, no fracture of femur or humerus, no injury to the skull. Any organ in the trunk is classed as important.

The more open the tactical operations, and the less the part played by the artillery, the less, as a rule, will be the number of serious casualties and the smaller proportion of dead. Wounds resulting from artillery fire are more serious than those from rifle fire.

During a year of active operations the casualties of a combatant organization may reach 70 per cent of its strength.

As to requirements for transportation, the casualties (excluding dead) may be roughly classified as follows:

Able to walk, with or without assistance.....	40%
Requiring transportation sitting.....	40%
Requiring transportation recumbent.....	20%
<hr/>	
Total.....	100%

In the evacuation from the field hospitals to the rear the transportation requirements will be about as follows:

Requiring transportations sitting.....	60%
Requiring transportations recumbent.....	40%
<hr/>	
Total.....	100%

From 60 to 80 per cent of the patients will eventually return to full duty.

SORTING OF CASUALTIES

At every station at which casualties are received and from which they are evacuated, they

are sorted according to the treatment to be administered and the disposition to be made of them. The purposes of this sorting process are as follows:

(a) To separate malingerers from bona-fide cases of sickness or injury.

(b) To separate arriving cases that are to be retained temporarily at the station in question for rest, recuperation or treatment, from those which are to be evacuated at once to stations in rear, or returned to the front.

(c) To classify the cases retained at the station according to the nature, extent and urgency of the treatment to be administered.

(d) To classify the cases to be sent to the rear at any time according to the nature of their disability; according to degree of injury and urgency of treatment required, and according to the class of transportation required.

(e) To determine, at frequent intervals, the further disposition of cases on hand at the station, with a view to proper treatment of cases and clearing the station for forward movement or the reception of fresh cases.

Sorting of casualties is thus a continuous process at all stations on the route of evacuation, varying in its application and extent according to the special function of the station, and the tactical situation of the moment. A team of litter bearers, finding two wounded men, select for immediate removal the one who, according to their judgment, more urgently requires relief.

At the more important stations medical officers classify the casualties as to the nature and urgency of treatment required.

At battalion (or regimental) aid stations all cases are provisionally diagnosed when possible and tagged. The diagnosis tag includes a brief statement of the treatment administered to the patient at the aid station (anti-tetanic, morphia, etc.). These tags serve as passes for the walking wounded. Cases requiring special attention at the ambulance dressing stations are indicated.

All casualties coming from the front, pass through ambulance head. The ambulance dressing station is accordingly a collecting station. During periods of relative calm it is here decided to which of the various field or evacuation hospitals the patients are to be sent, and go direct therefrom, especially when these hospitals are not grouped, in which case confusion and dangerous delays may result if the sorting is carelessly done and patients sent to the wrong stations.

In times of activity in open warfare there will be little opportunity for the thorough sorting of casualties at either battalion aid or ambulance

dressing stations. In such situations each division in the first line established a field hospital as a triage, from three to five miles from the front. All casualties of whatever nature coming from the front are here carefully diagnosed by field hospital personnel and the division consultants, and distributed to the various field and evacuation hospitals, according to the nature and urgency of the treatment required.

The extent to which sorting can be done at stations in advance of the triage depends upon the tactical situation, the rapidity of movement and number of casualties. In periods of relative calm in a stabilized sector the casualties can be more accurately diagnosed at battalion aid stations and sorted at the ambulance dressing stations, which facilitates their subsequent evacuation. In periods of activity when the number of casualties is large it will be impossible to sort them except at the triage. Evacuation hospitals establish a triage which functions the same as that of the divisional triage.

If sorting at other stations has been properly done no hospital should receive any sick or wounded who should have been sent elsewhere.

Each hospital keeps records of the cases passing it and renders reports required by the division surgeon or higher authorities.

FIRST AID AND PRELIMINARY TREATMENT

The chances of recovery of the wounded are greatly increased and the period of convalescence reduced if their vitality is maintained by preliminary treatment promptly administered as soon as possible after their fall. Such treatment checks or delays the ebb of vitality and saves many lives.

First aid is provided for by detailing two men from the attached sanitary troops to each company in the first line. As it is often not possible to transport the wounded at once to an aid station, (sometimes not until the period of darkness) first aid in the field, in the matter of applying splints and dressings, is of the greatest importance.

The troops should also be instructed in simple first aid including the application of simple dressing so that the wounded and their comrades may alleviate their own condition to some extent. In connection with this it was observed that every soldier in the enemy's army was well trained in first aid work and well drilled in handling of the wounded, even the most ignorant knew how to care for the wounded and the proper handling in his transportation, which was so often demonstrated by captured prisoners we pressed into service in bringing the wounded off the field.

At each station on the route of evacuation the wounded are given such comfort and treatment as necessary to alleviate their suffering and to restore or maintain their vitality. This preliminary treatment in the field and at stations en-route includes: First aid, dressing, bandages, checking of hemorrhages; application of splints; morphia; hot foods, drinks and stimulants; anti-tetanic serum; anti-shock treatment. Warmth, shelter, quiet and rest at stations and as far as possible during transport. It is especially necessary that shock be combatted by keeping the patients warm (with blankets and hot water bottles), during transport.

ZONES OF EVACUATION

The first zone extends from the front line to the battalion (or regimental) aid stations. This zone is subject to intense hostile fire from all weapons. Transportation is usually by means of litter, under control of the medical personnel attached to battalions and regiments. Other means of transport are utilized when possible.

The second zone extends from the battalion (or regimental) aid stations to the field hospitals. The usual means of transportation to this zone are ordinary litter bearers, or light ambulance, (animal or motor) from battalion aid stations to ambulance head (unless conditions permit the standard ambulances to reach the aid stations direct) and motor ambulance from ambulance head to the triage or field hospitals. This transportation all belongs to or is under control of the Division command.

The third zone extends from the divisional field hospitals to the evacuation hospitals and under control of corps. The fourth zone extends from the evacuation hospitals to the base and under control of army. The carriers in this zone are railroads and vessels under control of the line of communications (service or supply).

MEANS OF TRANSPORTATION

The transportation of the divisional sanitary train is designed to meet battle conditions but in times of emergency every available means of transportation is pressed into the service of evacuation.

Empty vehicles of all kinds returning from the front may be used, if necessary, to transport sick and wounded, usually the less severe cases, urgent cases being sent by ambulance.

The personnel and equipment of attached medical troops and of divisional medical units should not be employed, except in emergency, for the transportation of wounded beyond their normal zones of action. Thus battalion litter bearers

transport wounded only as far as the battalion aid station, whence they return to the front.

In assigning patients to ambulances they should as far as practicable be classified—all wounded or sick, or all gassed in any one ambulance.

LITTER TRANSPORT

Wounded unable to walk are transported by litter from the places where they fall to the company collecting posts and battalion aid stations. Other means of transportation are of course employed whenever practicable. The zone of transport by litter should in any case be made as shallow as possible, since this method is very slow and arduous, and also requires heavy demands on the effective strength, as in such haul four men are always needed for each patient.

Every effort should be made to remove the wounded from the field even in the face of heavy fire, unless sacrificing of litter bearers becomes too great. It will often be necessary to wait until dark before this can be accomplished.

The operation of the evacuation of the wounded should be conducted in such a manner as not to interfere with the tactical movements of troops or transport. Scheduled times may be prescribed to prevent interference of traffic moving to the rear with that moving to the front. These matters are the functions of the staff. It is customary to give ambulances and ammunition right of way at all times, however, at times it becomes necessary to adopt the paddle system on one way road to prevent complete blockade.

The routes of evacuation should be plainly marked with signs at important road junctions. Military police should be instructed as to the location of medical stations so that they may direct the wounded and ambulances.

AMBULANCE COMPANIES

The function of the ambulance companies is the transportation of wounded, by litter and light or standard ambulances, in the second zone of evacuation from the battalion aid station to the triage or field hospitals. They also establish ambulance heads and dressing stations, and occasionally the triage.

There are four ambulance companies in a division, usually bearing the same number to the infantry numbers.

Evacuable patients are held in evacuation hospitals no longer than is necessary to sort them and put them in condition to bear further evacuation to the rear without undue risk, or to return them to rest areas or to the front if the period of their disability is to be short.

The route of evacuation will include some or

all of the following stations, in order, from front to rear: a.—Company aid posts. b.—Battalion aid stations. (Or regimental aid stations.) c.—Ambulance head and ambulance dressing station. (These will, when possible, be at the same locality.) d.—The triage. e.—Other field hospitals. f.—Mobile hospitals. g.—Evacuation hospitals. h.—Army and base hospitals.

COMPANY AID POSTS

Local aid or collecting posts may be established in splinter-proofs, or with the best shelter available to cover the position occupied by each first line company. These are characteristic of stabilized warfare but are employed also in more open operations.

The battalion aid station is the first organized post on the line of evacuation of the wounded in time of battle. In preparation for combat, or when required by the number of wounded, one or more such stations are established for each infantry battalion in the first line and for the artillery, etc., as required.

Here the wounded of the battalion are assembled from the field or the company aid posts, and given such preliminary treatment as will enable them to endure the journey to the rear, and insure as far as possible their arrival at a surgical station in fit condition for immediate operation.

LOCATION

The location of the station will depend to some extent on the terrain, the roads, communicable trenches, and natural shelter available. It should be nearly opposite the center of the battalion or so located as to intercept the natural drift of wounded to the rear. It should be close enough to the front line to promptly receive the wounded. According to circumstances this distance varies from about 300 to about 1200 yards.

The station should be in close liaison with the battalion post of command and may be in the same vicinity, but it should not be placed so close as to interfere with the command.

TREATMENT OF WOUNDED

The treatment of the wounded at battalion aid stations includes so much of the following as may be necessary before they are evacuated: Application of dressings to wounds and splints to fractures. Checking hemorrhages. Anti-shock treatment, which includes shelter, rest and sleep. Warmth, hot food and drinks, morphia to allay pain, etc. Administration of anti-tetanic serum.

The responsibility of the battalion surgeon ceases when the case leaves the battalion aid station.

REGIMENTAL AID STATIONS

Regimental aid stations, when established, perform functions similar to those of battalion aid stations, and may either supplement or replace the latter. If this be not required the regimental aid station become merely a co-ordinating point. However, at this point, the responsibility of regimental for farther disposition of the wounded ceases and the ambulance section responsibility begins, through an appointed officer designated from the ambulance company usually with a corresponding number to the command they are serving, a liaison becomes established with the ambulance park in the rear where a pool of transportation is made and is dispatched into the forward stations as required.

AMBULANCE HEAD

Ambulance head is the most advanced point at which one or more ambulances may be safely and conveniently held. From this point single ambulances may be dispatched to battalion aid stations, or as close to them as possible.

There should be close liaison between each ambulance head and the ambulance park in their rear, and ambulances are sent forward from the park as they are needed. This becomes automatic under ordinary conditions by replacing the loaded ambulances coming down with one going forward in rotation to the front lines. This system being adopted and when not interrupted by some outside interference, we were able to have our wounded back ready for hospitalization without delay, and all cases in good condition; this is based on personal experience in reporting 32,000 cases handled by ambulance section of our own division, of this number 22,000 were moved under fire of the enemy. The personnel at ambulance head should know the location of all aid stations or evacuation points where ambulances or litters may be required.

In both open and stabilized warfare the headquarters of the ambulance is located at the ambulance park established in a central position, convenient with reference to the routes of evacuation and the other medical department stations, and slightly in advance of the triage or forward group of divisional field hospitals.

AMBULANCE DRESSING STATIONS

At ambulance dressing station all wounded are given such additional treatment as necessary before they are transported to the rear. This treatment is similar to but more thorough than that administered at the battalion aid stations. It includes readjustment of dressings and splints,

more elaborate dressings, checking hemorrhage, nourishment, warmth, anti-shock and anti-tetanus treatment. Particular attention should be given to cases of shock, and when practical serious cases being held awaiting favorable reaction before evacuation to the rear. Shock develops more frequently at dressing stations than at battalion aid stations.

THE TRIAGE

During periods of great activity in the war of movement each first line division established a sorting and diagnosis station for all casualties called a triage. This is the most advanced station established by a divisional medical unit at which all casualties arrive.

It is usually located in a central position, on the natural line of evacuation, and at a distance of from three to five miles from the front line. It is established and operated usually by a field hospital company, but if the hospitalization facilities are over-taxed the triage may be established by an ambulance company, or a combination of ambulance and field hospital personnel and equipment. If there is any one point on the line of evacuation in handling or caring for the wounded more important than another, it was this triage, for it was here every medical officer was more or less concerned. It is where all wounded are cleared, a place where the front line surgeon sends his walking wounded, receives medical supplies, reinforcements, emergencies of all kinds, a place where all ambulance cases report for control in making hospitalization and from where the hospitals get their wounded. It is where the medical chiefs can be found through proper liaison and a point always known to all by orders issued by the commanding general upon advice of the chief surgeon. From a long and continuous experience of nine months of unbroken service in the front line, participating in five of the greatest battles of the war, in which 41,268 cases were hospitalized, by the medical department of this one division, a system was carried out whereby it became only necessary to designate this one hospital for triage at a co-ordinating point, to put the entire medical department in complete order without lost motion and unnecessary delay to the wounded man, was considered extremely important in dealing with shock and overcoming infection as much so as the operation itself. With this brief consideration of the part to be carried out by the medical department serving with fighting troops of an army, from a tactical standpoint, I shall quote some of the observations met in the field hospitals, of a combat division with some reference to the surgical work encountered.

It was the universal policy to evacuate at once to the rear all cases capable of standing the trip, so that operative surgery at the front resolved itself into the treatment of the seriously wounded, that is, of those whose condition was such that further transportation was both inadvisable and dangerous to life. Very early in the campaign it was realized that for the most part the field hospitals must rely upon their own resources in the care of such cases, for in an active fighting unit, moving from one sector to another, the hospitals must be as mobile as the division, and ever able at a moment's notice to care for the wounded. In spite of their surroundings and whether the units be working in well equipped hospital buildings, whether they be in barns or in tents, provisions must always be made for prompt action on those cases requiring immediate surgical intervention. At an early date, in order to be prepared for any contingency, six operating teams and four shock teams were organized from the personnel of the section. Operating room assistants, anesthetist, orderlies, and litter bearers were selected and given special training. The operating teams as well as the shock teams worked in relays, thus permitting periods of rest between reliefs. The mobile x-ray was a valuable adjunct to the operative work, making possible the location of foreign bodies, and the demonstration of the extent and nature of fractures. On different occasions it furnished light for the operating room. At times the drain on sterile dressings became so great that it was necessary for the hospitals to do their own sterilizing, when a Thresh-Fodden was used which served the purpose admirably. The routine of operation was in all cases essentially the same.

On arriving at the field hospital the cases were sorted and classified according to the nature of their wounds and with regard to their condition for further transportation. Those presenting symptoms of shock were taken at once to the shock room for special and immediate treatment.

In the pre-operative ward the cases were again closely examined with a view to determining which needed prompt attention. Any such were picked up on a special chart.

This chart was found invaluable from many standpoints especially in that it necessitated careful examination of all patients. Crowded and insufficiently lighted advanced aid stations, rapid evacuation from these stations under shell fire, and divided responsibility in dressing the wounded, at times resulted in the failure to record the use of tourniquets, or to detect the presence of hemorrhage. In the same connection one case of morphine poisoning was observed though for-

tunately it was discovered in time to prevent a fatality.

This particular case went to the operating room with multiple gunshot wounds and was given a hypodermic of morphine there being nothing on the field card to indicate that it had previously been administered. At the conclusion of the operation, which had been rather lengthy, owing to the multiplicity of wounds, the operator was amazed, while making a final inspection, to observe his patient suddenly relax and stop breathing. The surgeon at once raised the eyelids and the contracted pupils told the tale. Artificial respiration was resorted to and the patient soon began to breathe and although his condition was rather critical during the following hour, he eventually recovered. This case is cited to show the danger of giving morphine without record, for as this man was badly shocked and poisoned it would have been pardonable to attribute the entire syndrome to shock alone. Of equal importance is the advisability of recording all obtainable data concerning the nature of the wounding agent, as well as the manner in which the wound was sustained. It is a well recognized fact that shell fragments or bullets once entering the body may travel in any direction leaving no external clue to the subsequent course. The final destination of the missile is determined by its nature, velocity and angle of entrance. Given a chest wound, a bloody vomitus would be strong evidence that the missile had passed through the diaphragm, and penetrated the stomach and to omit this evidence from the records would be a serious mistake, for, although a perfect operation might be performed on the chest wound, the complicating abdominal injury untreated would surely be fatal. On the other hand, when a patient coming to the operation room, a carefully taken description of his wounds saves valuable time for the surgeon, imparts to him needed information and saves valuable time for those who are patiently and painfully awaiting their turn.

This leads up to a consideration of shock, that interesting and baffling condition, complete solution of which up to the present time, had defied the efforts of our keenest surgeons. Much extensive research work and all the war experience of the allied surgeons had contributed little to the methods of treating shock and it was necessary to fall back upon ante bellum principles.

One of the cardinal principles in the treatment of shock is the lessening of further shock, and in this connection much credit is due the regimental surgeons and aid station personnel for their splendid care and treatment of the fracture cases.

Such cases invariably reach the field hospitals in good condition due to the very careful and judicious application of the Thomas splint, which has proven itself such a boon in the war just concluded. The use of this splint lessened further trauma, relieved pain, diminished or altogether prevented shock and rendered transportation less complicated. The benefits of the special training that the regimental medical personnel had received in the application of the Thomas splint was plainly manifested.

Every shock case upon reaching the field hospital was sent at once to a shock ward. A chart was adopted in order to permit a close study of the cases treated and thereby afford an opportunity for determining the relative value of the various forms of treatment. Upon arrival of a case in the shock ward, the litter was placed on a pair of low horses, one for each end. A hurried examination was then made by the officer in charge to determine if there was any open or concealed hemorrhage. If none was found the patient was covered with warm blankets and heat was applied beneath the litter in the form of solidified alcohol, usually four cans being used to a single case, the cans being carefully guarded by metal boxes open at one end only. Blankets were then dropped over the sides of the litter to the ground. Warm drinks were given in small quantities if the patient had no abdominal wound or was not slated for early operation. The only cardiac stimulants used were caffeine citrate and camphorated oil given subcutaneously. Morphine was given both for the relief of pain and for its general beneficial effect. Gum acacia salt solution, was used with disappointment.

The length of a patient's stay in the shock ward depended upon his condition. If reaction was prompt and there was no special need for an immediate operation he was evacuated. If an operation was indicated it was performed as quickly as circumstances would permit.

A study of the shock cases treated by the Field Hospital Section leads to interesting and valuable conclusions concerning the etiology of shock. During the early days of the entrance of the Division into active campaigning when the weather was warm and the soldiers were in splendid condition both physically and mentally the number of shock cases was relatively small. It was observed during this period that even those cases in severe shock responded readily to treatment. Youthful enthusiasm rose to the surface. They laughingly recounted tales and experiences from the battle line and though snatched from the jaws of death, they eagerly inquired how long it would

be before they could return to the line.

In striking contrast was the clinical picture presented by the wounded during the closing weeks of the war. Not only were the shock cases greater in number, running up to 17 and 20 per cent of the severely wounded, but they were far graver in character, reacting very slowly to the most energetic treatment. Worn out by long fighting with little chance to rest, exposed to cold with insufficient protection, constantly wet and insufficiently fed with cold food, made necessary by the risk of building fires along the line, the men were at a low water mark of fitness, both mentally and physically. The reserve was gone and consequently the type of shock now exhibited was more profound and durable than had hitherto been encountered. Soldiers with only moderate wounds reached the hospital in deep shock from which, often, they never rallied under any form of treatment. One case, in point, will serve to illustrate this condition. A soldier with a simple fracture of the humerus was admitted to the hospital in deep shock. In spite of the most thorough and energetic treatment he never reacted and within a few hours died. The mortality of the shock cases was, consequently, extremely high in spite of every possible form of treatment and the experience of all was that, no matter what the type of treatment, the results were most unsatisfactory and discouraging. In a word, the appearance of these shock cases was that of extreme exhaustion. They were unusually apathetic and silent and manifested little interest in their surroundings or any real desire to live.

It was found that war surgery, like all traumatic surgery, continually presented three great problems, viz.: shock, hemorrhage and infection. Shock has already been discussed but it must be emphasized that it was materially lessened by the careful attention given the wounded at the regimental and advanced aid stations and by the rapid evacuation by the ambulance companies of all wounded to the field hospitals. Hemorrhage was controlled by the tourniquet or direct ligation which ensured the cases reaching their destination without serious loss of blood. With regard to infection it was noted in the early days of the war that the number of wounded dying from tetanus was very large. Accordingly, a thorough system of immunization was carried out and every wound, no matter how trivial, was considered to justify the administration of antitetanic serum. So religiously was this plan followed that it was a rare event for a wounded soldier to appear at a field hospital without having received his prophylactic dose of serum. Experience with gas bacil-

lus infection was limited owing to the fact that, in most instances, the cases were received promptly after injury, and were evacuated before the development of this grave condition. This was true also of the pyogenic wound infection but an effort was made to prevent all infection by adoption of the well recognized prevention means.

It was found from experience that prompt operation was indicated in the following: First, some compound fractures of the skull; second, the intra-thoracic wounds of the sucking type, where relief could be afforded by removing missiles and pieces of bones from the lungs, cleansing the pleural cavity of clots and closing without drainage; third, all abdominal cases, where a hemorrhage might be rapidly fatal or a peritonitis imminent; fourth, cases requiring amputation thereby removing at once the great shock focus; fifth, a class of joint injuries, that the rapid infection which often ensues might be averted, and sixth, all hemorrhage cases.

It might be interesting to quote in brief of the methods of supply. The Medical Supply Unit, in combat, was always stationed with the advance triage, and when conditions demanded, an auxiliary supply station was sent ahead to the Advance Ambulance Dressing Station. From the triage and A. D. S. the front line was supplied by ambulance and litter bearers. A note or verbal message from regimental and battalion surgeons to the A. D. S. requesting supplies was immediately complied with. There seldom arose an emergency that demanded a special trip of an ambulance, those bringing patients to the rear brought the requests and those returning to the front carried up supplies. The hearty co-operation of the whole medical department made it possible to properly care for all casualties. Without it this would have been an impossibility with the limited transportation of the Medical Supply Unit.

Space will not permit of an enumeration of the obstacles met and overcome by the Medical Supply Unit of the Division. A fairly comprehensive idea of the tremendous difficulties always present, may be formed if you will draw a mental picture of managing the only drug store in a city of thirty thousand population. The store must operate day and night and change location every few days and some times daily. There are only eight clerks and more cannot be obtained. There are two trucks of three ton capacity each to move with. The city is under almost constant shell fire and bombardment from the air.

The following listed items are abstracted from the records of the office of the Division Medical

Supply Unit, representing issues to the Division from its arrival in France up to St. Mihiel offensive. Further details not available as a part of the records of the office were lost in action.

Iodine swabs	No.	36,172
Iodine, tincture	Pints	1,003
Bandages, 5-yd. long.....	No.	22,464
Bandages, 6-yd. long.....	No.	24,192
Bandages, muslin 5-yd.....	No.	5,160
Bandages, triangular	No.	3,073
Cotton, absorbent	Lbs.	7,163
First aid packets.....	No.	61,339
Front parcels, Red Cross.....	No.	24,735
Gauze, sterilized	Sq. Yd.	37,693
Blankets	No.	25,869
Litters	No.	15,249

INFECTION OF THE GALL-BLADDER*

J. E. BRINKMAN, M.D., Waterloo

Gall-bladder infections concern both the internist and the surgeon. In dealing with the condition as frequently encountered and one so capable of being confused with other conditions because of its ability to produce various reflex symptoms and because of the possibility of its lowering the standard of health and also of the fact that it may suddenly bring us face to face with a serious and oftentimes fatal termination, viz., perforation, and that it is frequently the site of malignancy, we should be ever on the alert to recognize its presence, and outline such treatment either medical or surgical as seems most fitting to the case in hand.

Too often I fear, we underestimate the homely though oftheard expression, "Doctor, I'm having another one of my bilious attacks."

Until rather recent years, it was quite an accepted fact that most symptoms referable to the biliary tract, unless associated with stones, was usually the result of some indiscretion in diet and all that was necessary was to correct the diet and our responsibility ceased.

All this was splendid advice and should not be underestimated. However, in more recent years we have come to consider gall-bladder conditions as one manifestation of some type of an infective process, and that it is the local and constitutional manifestation of a pathological process, the result of the elective affinity of certain types of micro-organisms.

Much credit must be given to Rosenow, Billings and other investigators who have established

the truthfulness of the above statement beyond any doubt. Rosenow has injected animals with bacteria from infected gall-bladders and has demonstrated that nearly 80 per cent developed lesions of the gall-bladder, while only 3 per cent exhibited symptoms following the injection of bacteria from sources other than an infected gall-bladder. The elective affinity for the gall-bladder was shown in sixteen strains of streptococci from cholecystitis.

Let us consider briefly the function of the gall-bladder in a state of health. We know that normally it is a little pouch composed of fundus and neck which terminates in the cystic duct. The walls of the gall-bladder are composed of a mixture of fibrous tissue and unstriped muscular fibres. Most of the latter are disposed circularly, but oblique and longitudinal ones are interwoven. The inside of the gall-bladder is lined by mucous membrane which is covered with simple columnar epithelium.

The outside covering is serous membrane. The chief arterial blood supply is the cystic artery which is a branch of the hypatic. The veins join the cystic artery and empty into the right division of the portal vein. According to Sappey, a number of small veins run directly into the liver tissue joining the portal system. The lymphatics empty into the nodes in the portal fissure, some open into a node said to lie in the angle at the bend of the neck, its nerve supply from the solar plexus through the hypatic plexus. It is capable under normal conditions of holding about one and one-half ounces. The exact function of the gall-bladder has never been positively established. Because of its size, it would appear that as a reservoir, it would be of little use. We must offer then some other excuse for its existence. The bile which enters the gall-bladder differs from that which comes directly from the liver, the chief difference being that it shows a higher content of solids. This difference is believed to be mainly the result of the mucous added to it by the glands in the bladder wall. Not all animals can boast of having so mysterious an organ as the gall-bladder. Among them are the horse, the rat and the pocket gopher. And judging from the strength of the horse, the appetite and general cussedness of the rat, and amount of energy and strength in proportion to its size, the primitive subway builder, the pocket gopher, it would not appear that any of them were any the worse off for having been denied the ownership of an organ so capable of doing so much harm when it sets its head on doing it. According to F. C. Mann, the action of the gall-bladder seems to be about as follows:

*Read November 4 at Hampton at the Austin Flint-Cedar Valley Society.

The liver secretes bile more or less continuously. Under normal conditions this is secreted under very low pressure. The sphincter at the opening of the common duct is normally undertone which is great enough to increase the intraduct pressure above the resistance offered to the entrance of bile into the gall-bladder. At intervals the sphincter relaxes allowing bile to flow into the intestines. The mechanism controlling the actions of this sphincter is not understood, but is known to be under nervous control. The gall-bladder not only acts as an expansal chamber for the accommodation of the difference in the bile secretion and bile discharge, but it also prevents some of the fluctuation in intra-duct pressure, which would occur during respiration in all instances in which the duodenal sphincter is active. It should be appreciated that in all species in which the sphincter is constantly active, some mechanism like the gall-bladder is necessary.

Mann concludes his discussion of the action of the gall-bladder as follows: "A description of the gall-bladder does not explain its function. Why it should be desirable in some species of animals to allow the bile to enter the duodenum at the same rate as the liver secretion and in others closely related and having the same physiological environment to have developed a mechanism whereby it pours intermittently into the intestine, is not clear. More investigation will be necessary to eliminate this question." It has been demonstrated frequently at autopsy or at subsequent operations that when the gall-bladder has been removed, that that portion of the cystic duct remaining has become more or less sacculated in an attempt possibly of re-establishing a valve-like action of the normal gall-bladder.

If I were to summarize the physiological action of the gall-bladder in modern language, it would read something like this: "We were all born with one, what it's for I do not know." I am sure that we all agree that an infected gall-bladder is capable of doing an immense amount of harm. First, in causing symptoms so acute and characteristic as to leave but little doubt as to its guilt, and second, of its being capable of working in such an insidious and unsuspecting a manner as to make it quite difficult to prove, beyond all question of doubt, that it is really the abdominal bolshevik who is responsible for the whole propaganda of symptoms so closely interwoven with other parts of our economy, that other innocent structures are often suspected of being a party to some malicious atrocity on an innocent and health-loving individual, and that when this process once started, it often requires

wise heads to sit in council and try if possible to arrange the most suitable terms so that peace and health may once more be restored to the body so sorely afflicted.

The existence of gall-stones was known even to Hippocrates and Galen and are present oftentimes without any clinical manifestation.

There is no longer any doubt in the minds of thinking men but that these conditions are the result of bacterial invasion and that the infection enters the region much more often by the way of the general circulation than was formerly believed. In this connection I wish to report a case which has recently come under my observation:

Mrs. R., age sixty-four, about fifteen years ago developed symptoms which were quite characteristic of a gall-bladder lesion. This condition existed for a number of years and finally subsided with no further evidence of infection. Shortly before coming into my hands again, she was exposed to what was believed to be a severe streptococcic sore throat. Immediately upon the subsidence of the throat symptoms, she again developed very pronounced gall-bladder disturbance, ushered in by excruciating pain, vomiting and rise of temperature. After the acute symptoms had subsided, following the application of ice and general treatment, she then consented to be operated upon, at which time I found the gall-bladder embedded in a mass of omental adhesions, the gall-bladder containing many gall-stones. Owing to the fact of her poor general physical condition I was content with a cholecystotomy from which she made an uneventful recovery. I believe that the gall-bladder condition at this time was a direct invasion through the general circulation of bacteria from her throat.

Let me remind you here that very pronounced gall-stone colic, to be paradoxical, may not be due to a gall-stone attempting to leave the gall-bladder at all. In fact there may be no gall-stones there, and yet the patient may present a clinical entity which would at once suggest beyond all doubt the presence of gall-stones. What then causes the pain, if it is not the result of traumatic injury as we were long lead to believe? More modern observations which have been made possible with the advent of modern gall-bladder surgery, have lead us to believe that the etiological factor of the excruciating pain is not so much traumatism as it is tension in the gall-bladder.

This theory has been given most favorable consideration, because of the fact that many of our cases of gall-stone colic, when they come to operation as I said previously, have no gall-stones. So as a result, some other theory as to the cause of these characteristic symptoms had to be given. It was then discovered that in those cases of pro-

nounced symptoms which fail to respond to other methods of treatment got immediate and complete relief as soon as the tension in the gall-bladder was relieved. This theory has also been most beautifully demonstrated in cases of renal and ureteral calculi in which there would be immediate cessation of pain the moment the kidney was opened, and it has been further substantiated by the fact that in cases where radiographs would show ureteral stone located in a certain point in the ureter to which location it had traveled with most agonizing pain, that after the introduction of a tube into the kidney and with it the release of tension, the next radiograph might show the stone had made much progress on its downward course with practically no symptoms.

The onset, the sharp colicky pains radiating, usually relieved by heat and morphine, justify us in making a diagnosis of cholelithiasis. I believe that we are seldom able to confirm our diagnosis by the passage of these stones through the alimentary tract. In the first place, few stones ever succeed in negotiating the trip from the gall-bladder through the cystic and common duct and successfully make their exit into the duodenum. And if by chance any of them should reach the intestine, many of them are of such consistency as to be disintegrated by the secretions in the alimentary tract and hence lose their identity.

Many of these stones have as a nucleus, bacteria, around which are built layer upon layer of deposit, in an effort, as it were, by nature to surround and hold in captivity microorganisms which if permitted their freedom, might work havoc with the individual.

Rosenow has found that with the presence of stones within the gall-bladder that the bile and the gall-bladder wall may oftentimes remain sterile. In this connection he has demonstrated sterile bile in gall-bladders in which the walls are the site of bacterial habitat. To me these two conditions go to help make the gall-bladder a most mysterious organ, capable of having bodies formed with microorganisms held in captivity by chemical processes which have taken place within its contents and yet the bile itself in some instances remains sterile, also having its very foundation permeated with bacteria and yet harboring within itself contents free from infection.

One condition we are often called upon to diagnose and treat is cholecystitis. So often this condition is subacute or chronic before the patient consults a physician and the symptoms less characteristic than the preceding condition makes the diagnosis more difficult. It is here that we begin to appreciate the subtle sagacity of this type of

gall-bladder infection. In dealing with cholecystitis, especially the more chronic type, we are often called upon to bring into action all our diagnostic cunning. I believe that there are few conditions where careful, connected, painstaking history is of greater importance. Let me make at least one point and impress it upon your minds and that is—get a good history. We cannot overestimate the importance of a history in every case.

After all is done, who would care to take a very long chance with any condition if the history would not coincide with your other findings? And in dealing with an organ which is so capable of producing symptoms resembling other pathological conditions and oftentimes being associated with them, it behooves us to first get a careful history, analyze it, study it from all angles, and where it becomes intermingled with other conditions which confuse us, still keep pounding away at your history. And if we have an intelligent patient, the chances are that something will be brought out that will help us to differentiate between certain conditions which might exist simultaneously. Then back up this history with our physical examination, our laboratory and x-ray findings. Of course, we do not expect to be able to have the x-ray show upon the plate the presence of gall-stones or a diseased gall-bladder. This is, as we know, possible in only a small per cent of cases, but let us use it, not so much to prove that we have a condition of the gall-bladder, but to help us in determining that we have or have not some condition with which we might be confused, such as gastric or duodenal ulcer, chronic appendicitis, carcinoma, etc. In cholecystitis we are usually not confronted with the clinical picture which presents itself in cholelithiasis. Our patients may come to us complaining of symptoms quite remote from the true location of their troubles. Acute pain is generally not complained of and when present, is not always typical of a gall-bladder lesion. The symptoms given, unless carefully weighed, may suggest some condition of the stomach, evidenced by the fact that they frequently contain a bloating, hyperchlorhydric distress after eating, etc. Here is where our careful history comes into its own. We have pain in the stomach. When do we have pain? Is it regular in its appearance? Is it made better or worse by eating? Have we ever noticed any icterus of the eyeballs? Bile in the urine? Perhaps chilliness with rise of temperature, etc? At times there are symptoms of general toxemia. In some cases the gall-bladder seems to be the point of focal infection from

which general pains are produced resembling rheumatic features. In others a neuritis seems to be a part of the syndrome. Gastric or duodenal ulcer, pancreatitis and chronic appendicitis are all conditions with which we are apt to confuse cholecystitis conditions. Gall-bladder colic may often be confused with spasmodic pain of the stomach. The sporadic occurrence of gall-stone colic and the sensitiveness of the liver and gall-bladder, especially in acute cases, should protect the physician in making the wrong diagnosis. As mentioned before, the clinical symptoms are very often of a dyspeptic nature. Such patients have been treated for weeks, months and years for stomach trouble until someone by careful history and reasoning, by excluding has finally discovered the real cause to lie in the gall-bladder.

In Fulton's translation of some of Cohnheim's work he says, "Thanks largely to the opportunities which surgery has offered in making comparisons between clinical symptoms and a pathology of the earlier inflammatory infections of the biliary tract. But cases are still too frequent where owing to complication such as adhesions, etc., the symptoms are so infinite and the symptomatology so confusing that the differential diagnosis of gall-bladder lesions and lesions of adjacent organs is still a perplexing question."

There are certain diagnostic features which, if borne in mind, may be helpful. In peptic ulcer for example, the pain occurs from one to four hours after eating and although sometimes temporarily eased by food and soda, it occurs with definite regularity after eating. In contrast to this the pain in gall-stone disease may be independent of eating, is not modified by food, is irregular in relation to meals, and while like ulcer pains, it is located in the epigastrium, it has a wider field of radiation usually extending to the right costal arch and sub-scapular region. In cholelithiasis tenderness on pressure may be present or absent, while in cholecystitis it is a more constant physical sign. Vomiting is common in both cholelithiasis and cholecystitis and also in peptic ulcer. In gall-bladder disease it usually appears soon after the initial pain, and may give some relief. In gastric ulcer, vomiting occurs from one to four hours after meals and is usually followed by a great relief, especially for a time. In chronic diseases of the gall-bladder adhesions frequently exist between the gall-bladder and the duodenum or pylorus and so disturb their functions that a differential diagnosis is possible only when an intelligent early history is obtainable. Using Christopher Graham's exact words, "There is nothing so important as the carefully developed

history and that when this can be clearly obtained, errors in diagnosis will be at a minimum." Time will not permit me to enter into the discussion of any of the other forms of gall-bladder infection. Once having made a diagnosis either tentative or positive, what line of treatment are we going to suggest? That our patient gets some relief under medical treatment cannot be denied for we have all treated more sick gall-bladders medically, perhaps many times unknowingly, than those that we have treated surgically. However, I do not believe that we possess any drugs which exert any specific beneficial action on the gall-bladder when once it becomes diseased. True, we get some apparent relief, but is that relief not more the result of assisting nature by stimulating the processes of elimination, thereby giving a better chance to combat infection and its by-products.

The history of bile duct surgery begins with a history of operation for gall-stones. Occasional reports of incised gall-bladders and removing stones were made as long ago as 1700. The operation consisted of treating those cases surgically whose clinical symptoms were those of "pointing" in the vicinity of the liver and the surgical procedure pursued was a simple incision into the mass which was usually just beneath the skin. Bobbs of Indianapolis did one case of cholecystotomy in 1867 while the surgery of bile tracts dates practically from the work of Marion Sims and Lawson Tait in 1878. In 1880 Langenbeck did the first cholecystectomy. Wonderful progress has been made along the lines of gall-bladder surgery. In the *Journal of American Medical Sciences* published in 1884, W. W. Keen and John Musser published an article reporting three cases which they had handled jointly of removing stones from the gall-bladder. They tabulated all the cases up to that time, eighty-five in number. One of the concluding sentences in their article is as follows: "After reviewing the eighty-five cases, we are very much surprised and gratified at the low mortality from these operations, their mortality being only 30 per cent." And these gentlemen were cholecystotomists. Under modern surgical technic, these same cases might have been operated with a mortality of not over 1 per cent to 5 per cent. What operation is indicated in every case presenting itself is a matter which has not been definitely decided. There are many factors which enter into every case, such as environment, surgical skill of the operator and the general condition of the patient. Even in the hands of the most skilled clinician and surgeon, it is not always possible to say with absolute positiveness, "This bladder should have an cholecys-

totomy and this one an cholecystectomy." At the time of operation, it may be difficult to make out the pathologic conditions in the gall-bladder as the gall-bladder may appear quite normal and a certain percentage of cases come to operation even with good clinical evidence of pathology and yet no pathological condition can be determined. In these border line cases, we should not be content to operate in spite of, but should make a painstaking search for the possible etiological factor. On the other hand, in doing an appendectomy which presents strong clinical symptoms, yet upon operation we are sometimes surprised to find an appendix quite normal. We should not lose sight of the possibility of gall-bladder conditions and the gall-bladder should be carefully examined. The fact that the gall-bladder empties slowly upon pressure is not in itself sufficient evidence to warrant operation. Where we have definite pathology, we usually find some enlargement of the regional lymphatics. Experimental work has proven that the predominating infective microorganism in this locality is usually one of the strain of streptococci. Would it not be reasonable to presume, therefore, that it is the type of infection rather than some of the other generally accepted theories of danger from surgical interference in this particular portion of the abdominal cavity. It does not come within the scope of this paper to discuss fully the surgical aspect of this condition. I am convinced from my own experience and observation that many of these cases on whom we did cholecystotomy would have been much better off had we done an cholecystectomy. I believe that where we feel reasonably certain that the gall-bladder is really diseased, that simple drainage in most instances will be disappointing. On the other hand, when we find what appears on opening a gall-bladder containing stones with no evidence of previous infective processes, such as adhesions, changes in the bladder walls, enlargements of the lymphatics, especially where the patient is of rather advanced age, that an cholecystotomy is frequently the operation of choice. A cholecystectomy is fast becoming the operation of choice, other things being equal. There is nothing to prove that a gall-bladder excised interferes in any way with the normal physiological processes of digestion and elimination, and while it requires in some particulars a better technic to avoid hemorrhage and injury to the hepatic or common ducts, its convalescence is usually much quicker and the danger of recurrence much less in an cholecystectomy than an cholecystotomy. At present I believe that even surgeons of large experience are

still at a loss to know just the right procedure to pursue in every case.

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POST-OPERATIVE TETANY*

JOSEPH H. McGRADY, M.D., Independence

Tetany as a post-surgical complication is so intimately associated with disturbance of the parathyroid that it has come to be thought of, for the most part, only in connection with surgery of the neck. While the condition is undoubtedly due to hypoparathyroidism the clinical significance of the widely diverse conditions upon which it attends claims consideration of the processes leading to its incidence. It also occurs in many conditions due to parathyroid inefficiency without discoverable cause. Its wide range of possibilities is best evidenced by Frankl Hockwart's definition and classification: "Tetany is characterized by tonic, intermittent, bilateral, often painful cramps, which without as a rule loss of consciousness, involve the muscles of the arms and hands, particularly which later are wedge-shaped or in the obstetrical position. The cramp is not always limited to the upper extremities but may include the legs, at times the jaws, the larynx, face, rarely the thorax or other parts of the body (abdomen, neck, diaphragm and tongue). The tetany face shows the angles of the mouth drawn down, deep naso-labial folds, forehead wrinkles, wide lid slits and in children the carp mouth, formed by a pursing and protrusion of the lips." (Uffenheimer).

Primarily the flexer muscles of the extremities are involved and trismus, if it occurs at all, is found very late in fatal cases. The spasms of the extremities may be infrequent or sometimes separated only by lapse of minutes and nearly continuous in fatal cases. The flexed joints can be forcibly extended in some cases with considerable pain, and immediately return to flexed position when force is removed. During interval between spasms no departure from normal is noted as a rule, but in severe cases there may be

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observed fibrillary twitching of the muscles and spasms may be elicited by the slightest irritation. In exceptional cases the nervous excitability increases to noisy delirium and death occurs from cardiac depression. The conditions in which tetany have been observed are as follows:

(a) Idiopathic—vocational (found in shoemakers and tailors). (b) Gastrointestinal—due to gastric ulcer, cancer and visceral dilatation and this form has a mortality rate from 45 to 75 per cent. (c) Tetany associated with acute infections—typhoid, Asiatic cholera, measles, scarlet fever, tonsillitis, laryngitis, polyarthritis, malaria and rarely influenza. (d) Tetany of poisons—due to chloroform, morphine, ergot, phosphorus, lead, urea, novocaine, atropine, cocaine, other renal intoxicants, occasionally after tuberculin injections, and possibly from alcohol. (e) Tetany of maternity—a condition met with more frequently than suspected, but most frequently between the six and eight months of gestation and in the first three months of the year. (f) Tetany of parathyroid disturbance—from excision, injury, loss of blood supply, inflammatory, cystic, or neoplastic disease. (g) Tetany of various nervous diseases—occasionally accompanies epilepsy, Basedow's disease, myxedema, tumors of the brain, syringomyelia and cystercici.

The latent or chronic forms of tetany are marked by certain subjective and objective symptoms. In addition to the hypertonic myo-excitability as demonstrated in the Trousseau's, Chvostek's and Erb's phenomena and sensory disturbances, there are certain pronounced tropic changes. The teeth are ridged horizontally with marked defects caused by disturbed enamel production; the hair falls easily or is very thin; the nails are fragile and horizontally ridged; a most interesting ocular change is a perinuclear cataract which does not, as a rule, interfere with vision. Clinically tetany is associated with other nervous phenomena included in the spasmophile diathesis and it stands in close relationship with cases of sudden death in children, to which there can be assigned no adequate anatomic cause. The knowledge that tetany is a manifestation of one phase of the nervous disturbances associated under the term spasmophile diathesis renders the dictum that a "convulsion in childhood is analogous to a chill in adults" untenable.

Since 1904 when Jeandelize and Yanase recognized the connection between tetany and the parathyroids an extraordinary amount of study has been given to the pathologic mechanism of tetany production. MacCallum and Voegtlin conclude that in all of its forms the essential factors of

tetany are found in the relation of the parathyroid to the calcium metabolism of the body; that their researches which bear on the role which the calcium salts exert in connection with tetany are of exceeding importance, for they tend to prove that the "salts have a moderating influence on nerve cells;" and that the parathyroid secretion in some way controls the calcium exchange of the blood. Koch's conclusions are that two schools of belief exist as to the methods of tetany production; that MacCallum, Voegtlin, Lambert and Voegil assume the cause to arise from a disparity in calcium content of the blood; Koch bases his conclusions on the findings in the urine of parathyroidectomized dogs of guanidin bases and their salts, in various stages of alkalization, and in quantities which he reasons to be lethal; that the symptoms of guanidin poisoning and parathyroid tetany are identical; that a highly poisonous and easily hydrated substance, mythl-cyanamide, is the mother substance of guanidin; that the cellular metamorphosis of guanidin poisoning is identical with that of acidosis; that the spasms of tetany are due to intoxication of the central nervous system and their myo-neural junction and are an expression of the efforts of the organism at detoxication. These findings seem undebatable and the processes adduced by the adherence of both schools of belief warrant the assumption that tetany is the result of a neuro-toxic poison, arising from a metabolic perversion caused by injury or inefficiency of the thyroid bodies, sown upon the soil of spasmopheli diathesis. It remains for the physio-chemical laboratory to accurately determine the origin of the poison, their estimation and control.

That the condition is not infrequently met with must be concluded from the result of a rather wide inquiry made for the purpose of collecting cases of tetany complicating surgery other than strumectomies. There were collected four cases, two of which were fatal. One followed cholecystectomy; one followed gastro-enterostomy; two followed perineal plastics. From this observation it is evident that post-operative tetany is construed to mean a complication of thyroid surgery since a number of replies were directed to conditions following that procedure.

Case 1. Dr. O'Keefe, Waterloo, Iowa—Miss M. L., age thirty-five, graduate nurse, operated about eight years ago in St. Louis for an acute abdominal condition, preceded for a number of years by what might have been called chronic gall-bladder and appendix diseased with many adhesions in the region of the pylorus and duodenum for which cholecystectomy and appendectomy were done. She states that she was fairly well for a month or six

weeks after the operation at which time she began having frequent attacks of vomiting being able to retain very little food. After about a week she began having spasms of her face and hands which was diagnosed tetany and at the same time was told that it was due to parathyroid inefficiency. She continued to have attacks of tetany lasting from a few hours to a few days two or three times a year for about six years. In July, 1916, she had persistent vomiting and epigastric pain and a few days following had a typical seizure of tetany involving her face and both upper and lower extremities. Fluoroscopic and radiographic examination of stomach and duodenum showed a marked dilatation of the stomach and kinking of the first and second portion of the duodenum with retention of a large portion of the Barium meal. Then a gastrojejunostomy was done in August, 1916. The findings at this time were such as to lead to the conclusion that there had been a perforating gastric or duodenal ulcer. She made a good recovery and states December 25, 1918, that she has had no return of her tetany, is in good health and following her profession. It is of interest to note in this case that during the period of six years following the diagnosis of parathyroid tetany she was taking parathyroid and pituitary substances.

Case 2. Dr. Householder, Winthrop, Iowa—Patient, female, age twenty-two, no previous history of convulsive attacks. Operation for repair of slight perineal laceration, September 12, 1917. Local anesthetic employed, four c.c. of 1 per cent cocaine solution being used. Fifteen minutes later patient was seized with typical tetany cramp in both arms and legs. These lasted for about thirty minutes. This case was doubtless due to the untoward action of cocaine. There has been no recurrence.

Case 3. Dr. Chesire, Marshalltown, Iowa—Patient, female, age thirty-eight, no pre-operative history of tetany or convulsive seizure. Following a trachele-perineorrhaphy there developed the spasms of tetany affecting both the upper and lower extremities with characteristic posture. The condition did not respond to treatment and death occurred on the second day.

Case 4. Author's Case—Patient, W. R. male, age forty-nine, farmer, widower, with history of gastric disturbance extending over period of ten months. Had been given Seepy treatment and diarestriction without improvement. X-ray showed positive pyloric deformity. On August 13, 1918, posterior gastro-enterostomy was done and thirty hours following there was marked twitching in forearms with pain and a marked mental excitability. Temperature 101, pulse rapid and running in character, respiration 20. Soon after the onset of the nervous symptoms there was profuse sweating. Forty-eight hours after operation the spasms became positive with the hands assuming the typical accoucheur and the feet pessequinus positions. During the intervals between the spasms fibillary twitching was noticeable in the muscles in

the upper extremities, later in the muscles of the thorax. The face assumed the Uffenheimer aspect. The respirations became staccato-like and at the end of a long interrupted inspiration a long interval occurred during which cyanosis would become apparent. The spasms could be produced by the slightest irritation, pressure on the arm or tapping on the cheek or chest would produce a tonic spasm. There was slight trismus shortly before death. The condition was uninfluenced by lavage and calcium lactate treatment. Examination of the operation site post-mortem showed no leakage nor peritoneal reaction.

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Discussion

Dr. O. C. Morrison, Carroll—Escherich drew the attention of the medical profession to this observation. That something was able to restrain certain toxins from attacking those parts of the nervous system which are directly connected with convulsive phenomena. He tried to explain tetany upon the ground of deficiency of calcium which in turn seemed to be controlled by the thyroid and parathyroid secretions. Following this work there have been many workers and as many varied theories. The truth is; the profession is much at sea on this subject and it is timely that we here take a few moments to review what has been learned to date. J. M. Taylor holds to the predisposing theory and feels it is more important than an exciting cause. On the contrary, Bruns reports quite a series of epidemic tetany. MacCallum holds that there is something in the parathyroids that acts with calcium to prevent the toxins from attacking the nervous cells. Some hold the lymphatics and their swelling responsible by pressure on the nerve cells. Sajous (1907), says: "Tetany is an accessory phenomena due not to the auto-toxin or bacteria toxin which they may add to the blood, but to a single class of spasmodic agents in all cases; i. e., toxic products of imperfect catabolism due to defective activity of the thyroid and parathyroid." All these and many other theories point to one common etiological factor i. e., some chemical substance which attacks the cerebro spinal ganglion and sets the patient into this convulsive seizure. When we trace the etiology of all convulsive attacks no matter with what disease they are associated as, Huebners spasmaphelia diathesis, Frankelstein's exaggerated instability of tetany; Sajou's epilepsy, convulsive irritation from teething or

enteritis, traumatic convulsions or those of ergot and strychnia poisoning all show the following reactions in common. First—Trousseau's pressure on vessels. Second—Chvostek's reaction to the facial tap. Third—Erb's electrical reaction. They have many physiological signs and symptoms in common as well. The point I wish to draw to your attention is the possibility of an organic ring compound which is a common by-product of all the many so-called diseases manifesting convulsions as well as the basic ring upon which all tetanic toxins are builded. Should calcium be added to the ring it is inert. Should an anti-toxin unite with the ring it is again inert. We have learned after a long experience that there is some select power or attraction which renders bacteria and their toxins selective of certain tissues. The plasmodia malaria select the red blood cells and in turn there is a special affinity within their bodies for quinine. Why and what we explain by chemotaxis. The virus of syphilis attacks all tissues but this virus has a special affinity for arsenic; again chemotaxis. The virus of tetanus multiplies at the sight of inoculation but its toxins selects the cerebrospinal ganglia, chemotaxis again. We could find many parallel analogies but time does not permit. There is much evidence at hand to set us working upon convulsive phenomena. At the bottom of it all there seems to be an organic ring compound found common to all convulsive diseases and especially in tetanus, strychnia, ergot and many diseases manifesting the symptoms of tetany. I hope it will lie within the power of our ingenuity to learn of the chemistry of this compound and its habits of combining. When this is done nature and her great laws of simplicity will have been fulfilled and the laws of convulsive diseases solved.

PERNICIOUS VOMITING WITH A PLEA FOR THE MOTHER*

PAUL E. GARDNER, M.D., New Hampton

Nearly every case of pregnancy at some time during gestation has some form of toxic condition, some patients will seemingly improve in health and will tell you they feel better while pregnant. While these cases are rare they do occur. The greater number, however, have morning sickness and a whole chain of nervous manifestations which as a rule soon clear up with the aid of the usual medical attention, and especially diet, which in these cases is much neglected by the practitioner and are told to expect some trouble; that they will be all right after a while, etc., etc. In my experience of over a 1000 pregnancies covering a period of over twenty years it has been my misfortune to observe six cases of pernicious

vomiting, *i. e.*, they would not respond to any treatment that we were able to render, until we emptied the uterus. Five of my own, and one case I saw in consultation which went to a fatal termination.

Of my own cases, two were in the same patient some twenty years ago in which I produced an abortion, the patient recovered promptly, all vomiting ceased. The same can be said of my third case or second patient. The last two cases were in the same patient of which I wish to speak more definitely. Mrs. W., age twenty-four, on July 10, 1915, came into my office complaining of feeling hungry but could not eat as it made her vomit, was about two months along with first pregnancy, rather of a nervous temperament, weight about 110 pounds, temperature normal, pulse 80, she did very well for a few days then grew worse. August 4, pulse 120, temperature 98. August 5, pulse 130, temperature 97, looked badly, very weak, so on August 6, I emptied the uterus, vomiting and nausea stopped immediately. July 31, 1916 was again called and found her 2½ months pregnant and had been vomiting for two weeks and complained of considerable pain in and around the stomach. Pulse 70, temperature normal, as they were very desirous of having an heir, and thinking perhaps I had been unduly alarmed a year ago, we talked over the proposition of the expectant plan of treatment. Put a competent nurse in the home and did everything we could, but she kept going from bad to worse, some days she would feel fairly well, but always had a pain in her stomach and nausea. Finally on September 25, 1916, I emptied the uterus again, not until she was unable to turn over in bed and her pulse had gone to 140 and her temperature 97. She made a slow recovery but finally got well after a stormy convalescence.

It goes without saying that all these cases were done under consultation.

C. S. Bacon in summing up the suggestion regarding treatment, says:

First—The abnormal irritability of the nervous system, including the vomiting center, is to be allayed by keeping the patient in bed, by attention to the skin, bowels and kidneys, etc.

Second—The hysterical condition which is so commonly found present should be controlled by strengthening the will and influencing the dominant ideas of the patient.

Third—All sources of peripheral irritation should be discovered and removed.

Fourth—In extreme cases subcutaneous saline injections serve the three-fold purpose of diluting the blood and increasing vascular tension,

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eliminating toxine through renal and intestinal emunctories and furnishing two most important kinds of food.

Fifth—Induction of abortion is never indicated. At a stage when it is safe and efficient it is not necessary, and in extreme cases it adds greatly to the danger, rarely stops the vomiting, and can be substituted by the artificial serum.

Just why we have these peculiar conditions in some pregnant women is very hard to say, it is probably due to a acetonuria, which is the chief practical evidence of acidosis. Acetonuria may occur, however, without any glycosuria as in my case, at no time could I find sugar in the urine, so it is important to remember that even a healthy person who is starved of carbohydrate food is apt to pass acetone in the urine. This explains why it is that acetonuria occurs in such conditions as gastric ulcer, intestinal obstruction, and persistent vomiting of pregnancy, and probably many other conditions in which there is either actual or virtual starvation. Be this as it may, I cannot agree with those who hold that abortion is never justifiable or indicated, for what are you going to do for these patients.

After we have tried all sorts of treatment and our patient does not respond but grows weaker my advice is to empty the uterus and not to overwork the beautiful dream of watchful waiting. I do not pretend to give an authoritative answer to this subject; but I do contend that the conscientious physician should be untrammelled in his decision; that with a full sense of his responsibility to God and man and a consciousness of the duty he owes his profession, he should be allowed to follow the instinct to save life implanted more and more deeply in the medical mind as his experience grows.

No one has an unqualified right to life; the murderer's life is a forfeit to the law; the soldier's life is often a forfeit to the state. Neither law nor the church condemn this violation of the sixth commandment.

How much more merciful is medicine; how much less liable to condemnation, if it extinguishes a precarious life already doomed to extinction and in compensation saves a life still capable of preservation. Has not the woman herself a right to life? Has she not the right to demand the sacrifice of her embryo by the common law justification of self-defense or even by the old Biblical law that "Whoso sheddeth man's blood by man shall his blood be shed?"

For if the presence of an embryo in the womb insures a woman's destruction, in what other light can it be regarded than as the potential murderer of its host, the mother?

The decision of this momentous question must be left to the physician who occupies the unique position in civilized communities of arbiter of life and death without judge or jury.

I am proud to think that it can safely be left to him assailed with, and resisting temptations greater than confront the average human being, daily giving his services for the benefit of his fellow creatures, constantly striving to do the right thing by the sick entrusted to his care.

Discussion

Dr. T. F. Kinley, Rockford—I would like to ask the Doctor if he has tried any of the organic therapy treatments on the cases of vomiting. I see they are very highly recommended.

The Chairman—Are there any other questions?

Dr. J. E. Allaben, Rockford—Having seen one patient die with pernicious vomiting, I resolved, as the Doctor recommends to try something else. I had seen that dilation of the uterus would obviate the trouble by introducing a tent and leaving it in twenty-four hours. I found that it worked very well. One woman I had a few years ago had pernicious vomiting, and I introduced a tent and left it twenty-four hours and dilated the uterus pretty well and the vomiting was relieved and she came through in perfect condition.

The Chairman—Is there any further discussion? If not, Dr. Gardner will close it.

Dr. Gardner—I stayed away from the special medical treatment because you know if you get into that your paper would be altogether too long. I did not know that I was on the program until I got a copy of the program. I think Dr. Peck wrote me about it, but he addressed the letter to New Hampton and when it came I was gone and by the time I got the letter I did not have much time to look up the subject, and I did not try to quote much because it will lead you into a field where each one has his own idea and what will help one will not always be good for another. I had no experience with the organic therapy. I did not try it but I did try dilating the uterus. In fact, I tried to find and read everything on the subject and get every one's opinion, but it is like the consultation where there are too many doctors, as a rule it is not very good for the patient.

The knowledge gained by many years of persistent study of the development and improvement of medicinal preparations derived from a vegetable drug is bound to command respect. To Parke, Davis & Co. the medical profession owes the introduction of *Rhamnus Purshiana* almost half a century ago. By intensive application to methods of extraction and preparation this firm has ever since maintained the efficiency and pharmaceutical elegance of its cascara products. The appellation "The Cascara House," as applied to Parke, Davis & Co., is singularly appropriate.

THE STUDENT HEALTH DEPARTMENT
OF THE UNIVERSITY OF IOWA

C. R. THOMAS, A.B., M.D., Iowa City
Assistant Director

The most progressive universities of the country have, in recent years, begun to take a definite and systematized interest in the health of their students. Their object is not only to as far as possible prevent illness, with its consequent loss of time from study and retarded activity, but to treat it when present. With this object in mind the Department of Student Health was organized in the summer of 1919 and Dr. W. J. McDonald of Boston appointed director. After correspondence and consultation with directors of similar departments in the following universities; Michigan, California, Indiana, Minnesota, and Wisconsin, these universities having the most highly developed departments, a general plan, comprising the best features of the various methods, was adopted which would be best suited to the situation here.

As the primary object of this article is to give the physicians of the state, and through them the parents and guardians of the students in the university, the knowledge and assurance that the welfare and health of the students is being carefully and competently guarded and cared for, a brief outline of the personnel and equipment of the department, the methods in use here, an account of the work done in the past year, and the aims of the department seems indicated.

At present the personnel of the department consists of a director, an assistant director, both physicians, two graduate nurses, an undergraduate assistant and a secretary. During the past year a woman physician, not connected with the department, was employed to conduct the routine physical examinations of the women. It is confidently expected that a full time woman physician will be added to the staff before the opening of school. All the present staff, with the exception of the undergraduate, are on a full time basis and devote their entire time to the work of the department. The equipment consists of examining rooms, waiting room, dispensary, offices, and laboratory.

The general method followed during the past year is as follows. Each student, male and female, taking physical training is required to take a physical examination before starting the course. As this course is compulsory for students of the first two years it is easily seen that about half of the students are each year put through a stiff

physical examination which includes a nose and throat culture and a urine analysis. This examination and a brief personal and family history is recorded on a special card. One side of the card shows name, age, class and college, diagnosis and date. The other side is here shown. (Page 276.)

If at the time of examination any physical defects are discovered which would make the usual course of physical training detrimental a modified course tending to correct the defect or an excuse from all physical training is recommended. If the defect is one which requires immediate attention or specialized treatment the student is referred to the proper department of the medical school, which then undertakes the treatment or gives advice as to the best method for its correction. Any student in the university may, at any time, have a complete physical examination by applying to the director for an appointment. At definite times, throughout the year, students who have shown defects at the time of examination, are notified to report for further examination and in this way the results of treatment are checked up and any changes deemed advisable are made.

During the school year the dispensary is open from 8 a. m. until 5 p. m., special hours not being reserved for men or women. While this plan has lead to extra work for the staff and at times requires the students to wait a short time for attention, it has made the department much more accessible. The students may at any time, day or night, if too ill to come to the dispensary, notify the department and they will be seen in their rooms. An extra charge is not made for room calls although similar departments in other universities make a charge after the first call and an increased charge for night calls. If the patients do not require special care they will be treated in their rooms unless the condition is suspected of being a communicable disease in which case they will be sent to the isolation ward of the University Hospital. Any case which is thought to be in need of hospital care, or in which the advice of a specialist is desired, is sent to the proper clinic of the medical school for advice, this consultation being without expense to the student. In surgical emergencies students are frequently admitted to the hospital without first reporting to the clinic. When admitted to the hospital the students are under the care of the hospital staff which assumes entire charge of the case. When a student is discharged from the hospital this department is immediately notified and an effort is made to carefully superintend the convalescence.

Examiner.....

FAMILY HISTORY

F. Race.....	L. aet.....	Well, has.....
Nationality.....	D. aet.....	in the year....., of.....
M. Race.....	L. aet.....	Well, has.....
Nationality.....	D. aet.....	in the year....., of.....
Wh. relatives have had Tb?.....		Cancer?.....
Neurasthenia		Epilepsy?.....
Heart trouble.....		Apoplexy.....
Bright's disease.....		Rheumatism.....
Diabetes	Goiter.....	Obesity.....

PERSONAL HISTORY

Birthplace.....Other residences.....

Give approximate age at which student had any of the diseases or symptoms listed in the rectangle:

What injuries? (Give age).....

What operations? (Give age).....

Age of last vaccination scar: under 10 yrs.....; 10 to 20 yrs.....; over 20 yrs.....

Have done.....; also.....
(mental work other than schooling).....(physical work).....

Menses: began aet....., ceased aet....., Reg., irreg., scanty, norm., profuse.....
Days....., pain: none, sl., severe, at beg., during. Leucorrhœa.....

AmenorrhœaMetrorrhagia.....

Present general health.....Appetite.....Sleep.....hrs.

Do you know any physical disability that will prevent your entering any activities of the University?.....

PHYSICAL EXAMINATION

¹Gen. Devl.: exc., good, fair, poor. ²N.: thin, av., obese. ³Wt.....kilos. ⁴Ht.....cm.
⁵Skin: type....., normal, dry, pigmented, discolored.....

[illegible]

⁸Hair: face, sternum, breast, pubes, abdomen.

$$^9\text{Thyroid} \dots\dots\dots \text{F. H.} \dots\dots\dots \text{Res.} \left\{ \begin{array}{l} \text{Present} \\ \text{Past} \\ \text{Adolescent} \end{array} \right.$$

Sympt

¹⁰Lymph N.: C.....Ax.....Ing.....Mammae

¹¹Chest: norm.,..... ¹²Lungs: norm.,.....

¹³Heart: rate recumb....., erect....., norm..... sympt.....

¹⁴B. P. (max.) erect.....mm. (syst.).....mm. (diast.)

¹⁵Abdomen: norm., rigid, relax. ¹⁶Hernia: _____

17Palpable: Liv....., Spl.....R. Kid....., L. Kid....., Tumors.....

18Knee jerk: R....., L.....

19Vertebral column	{ Kyphosis Lordosis Scoliosis	20Feet: Long. arches	{ R..... L.....	anterior arches	{ R..... L.....
--------------------	-------------------------------------	----------------------	--------------------	-----------------	--------------------

²¹Other joints:

²²Remarks _____

²³Teeth: 8 7 6 5 4 3 2 1 1 2 3 4 5 6 7 8 Remarks
8 7 6 5 4 3 2 1 1 2 3 4 5 6 7 8

²⁶Nose: Nor., Spur., Dev., C. C. Rh., Turg. Rh., Hyp. Rh., Atrop. Rh. ²⁷Adenoids: L. S., ²⁸Chr. Pharyn.

²⁹Tonsils: Nor., Ab., Bur., Proj., Path.,.....³⁰Larynx:

³¹Ear: Nor., Cer., T. T., Chr. S., Wch. Spch. Whisp.

³²Eyes: Lids: nor..... Muscles: nor..... Fundus: nor.....; Col. vis.: nor.....

Refraction: O. D. _____; O. S. _____

Examiner.....

(Date of exam.)

- 1 Measles
- 2 Mumps
- 3 Chicken-pox
- 4 Whooping Cgh
- 5 Scarlet Fever
- 6 Typhoid Fever
- 7 Diphtheria
- 8 Malaria
- 9 Smallpox
- 10 Pneumonia
- 11 Pleurisy
- 12 Chr. Colds
- 13 Spit. of Blood
- 14 Asthma
- 15 Influenza
- 16 Rheumatism
- 17 Amygdalitis
- 18 Chorea
- 19 Otitis Media
- 20 Deafness
- 21 Boils
- 22 Erysilepas
- 23 Constipation
- 24 Ac. attacks of
abd. pains
- 25 Appendicitis
- 26 Jaundice
- 27 Headache
- 28 Neurasthenia
- 29 Insomnia
- 30 Tuberculosis
- 31 Glasses
- 32 Heart Trouble
- Other Diseases
- If married:
Pregnancies
Miscarriages
Children

A card is made out for each student, who applies to the dispensary, to which are attached records of subsequent visits, opinions of consultants, notes as to progress, special tests, etc., so that at any time it is possible to obtain very quickly a fairly complete history of the case. As all excuses from classes, because of sickness, must be made out by this department students are advised to report promptly all sickness no matter how trivial. Because of this rule many cases are seen in their incipency and treated much earlier than would otherwise be the case. This is especially true in connection with communicable diseases.

The students pay a health fee of \$1.75 per term which entitles them to all necessary medical attention, including medicines, except when it is necessary to send them to the hospital. When admitted to the hospital they are expected to pay the usual ward rates. Charges are not made for surgical operations. A nominal charge is made for glasses and roentgen examinations. The students have the privilege of being treated by the physicians of the town but at their own expense. When a local physician is treating a student the student is expected to notify this department which then investigates the case but does not in any way interfere with its management. Contrary to expectations we have received the most cordial and cooperative treatment at the hands of the local physicians. The health service is extended to cover the elementary and high school connected with the university.

The preceding paragraphs have dealt with the care that the students receive as individuals and as patients. The methods employed to prevent sickness and guard the health of the students are:

1. The preliminary examination, in the fall, to detect any condition which might make a student dangerous to the health of his fellow students. The number of diphtheria carriers detected in this way is in itself sufficient justification for the time and effort expended. Periodic examination of those showing physical defects.

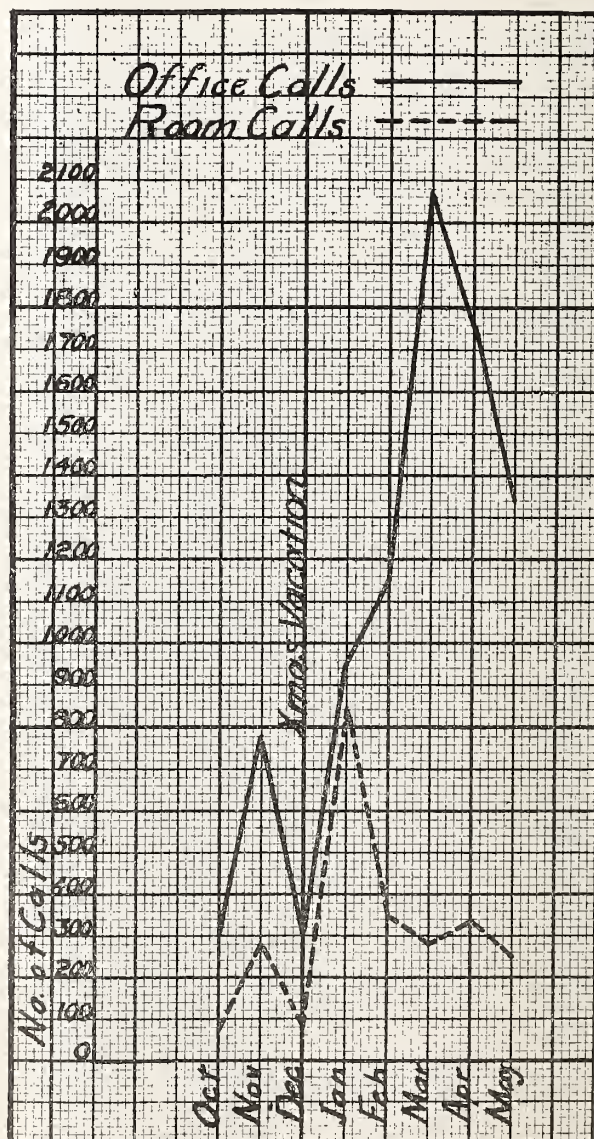
2. The prompt isolation of all contagious diseases and the vaccination, immunization, and restriction of all contacts. As there is not a compulsory vaccination law we are unable to vaccinate the students against their will. If a small-pox contact refuses to be vaccinated we are permitted to exclude him from all classes until it is thought safe for him to return.

3. Sanitary inspections of the boarding and rooming houses and an examination of the attendants. Fraternities, sororities, and dormitories are also inspected and recommendations for ventila-

tion, garbage disposal, etc., are made. A list of approved and unapproved rooming and boarding houses is submitted to the dean of men and the dean of women.

4. Education of the students in matters pertaining to personal hygiene and a correct mode of living. This is done by lectures, distribution of pamphlets, bulletin boards, and consultations. The lectures are given the freshmen throughout the year by the various members of the faculty while the lectures to the upper classes are given by the Department of Preventive Medicine and Hygiene.

5. One of the nurses, especially trained in school nursing, makes frequent inspections of the high school and daily inspections of the elementary school. Any child who does not seem well is referred to this department for examination. If in the opinion of the examiner the child is thought in need of medical attention it is given a note to its parents stating that the child seems in



need of medical attention and with instructions to send the child to the family physician. The department does not treat the students in these schools.

The work of the past year comprises: Routine physical examinations, 1895; men, 1010; women, 885; office calls, 8,700; room calls, 2,264; sanitary inspections, 303. The accompanying diagram gives a fair idea of the way in which the work of the department has increased as the students have learned to use and understand its benefits. It also gives an idea as to the monthly changes in morbidity.

The following is a list of selected cases seen during the past year:

Medical—Adenitis

- Tubercular
- Mitral Regurgitation
- Mitral Stenosis
- Aortic Regurgitation
- Aortic Stenosis
- Heart Block
- Functional Murmurs
- Pericarditis
- Pericarditis with Effusion
- Bronchitis
- Pneumonia
- Pleurisy
- Pleurisy with Effusion
- Thickened Pleura
- Empyema
- Asthma
- Gastritis
- Gastric Ulcer
- Ileo Colitis
- Helminthiasis
 - Hookworm
 - Tape Worm
 - Round Worm
- Diabetes Mellitus
- Nephritis
 - Acute
 - Chronic
- Arthritis
- Goitre
- Hypopituitarism
- Malaria
- Icterus
- Anaemia
- Communicable Diseases
 - Influenza
 - Scarlet Fever
 - Diphtheria
 - Chicken-pox
 - Small-pox
 - Measles
 - Mumps
 - Neisser Infection
 - Syphilis

Dermatological

- Eczema
- Acne
- Tinea Circinata
- Trichophytosis
- Dermatitis Venenata
- Dermatitis Herpetiformis
- Dermatitis Medicamentosa
- Epidemiophytosis
- Pityriasis Rosea
- Pityriasis Ruber
- Urticaria
- Herpes Zoster
- Herpes Simplex
- Herpes Progenitalis
- Pomphox
- Bromidrosis
- Lichen Planus
- Verrucae
- Psoriasis
- Scabies
- Pediculosis
- Furunculosis
- Ulcers

Surgical—Fractures

- Nose
- Clavicle
- Rib
- Radius
- Hip
- Patella
- Tibia and Fibula
- Dislocations
 - Shoulder
 - Knee
 - Clavicle
- Paronychia
- Appendicitis
 - Acute
 - Chronic
- Hernia
- Haemorrhoids
- Fistula
- Osteomyelitis
- Phimosis and Paraphimosis
- Varicocele
- Undescended Testicle
- Nephrolithiasis
- Eye, Ear, Nose and Throat
 - Astigmatism
 - Myopia
 - Hperopia
 - Strabismus
 - Chalazion
 - Hordeolum
 - Blepharitis
 - Conjunctivitis
 - Corneal Ulcer
 - Otitis Externa
 - Otitis Media
 - Mastoiditis

Sinusitis
 Perforated Septum
 Peritonsillar Abscess
 Vincents Angina
 Nervous and Mental
 Epilepsy
 Hysteria
 Neuresthenia
 Psychesthesia
 Dementia Praecox
 Manic Depressive Psychosis
 Ulnar Paralysis
 Brachial Palsy
 Bell's Palsy

The aims of the department are:

1. To as far as possible prevent the occurrence of disease.
2. To render prompt, efficient, and willing service to the students who are sick.
3. To educate the students in personal hygiene and all that it implies.
4. To teach the students the broader principles of public health.

While we realize that there are many things to be desired and many improvements that could be made in the working of the department yet we feel, that in the main, the department has accomplished during the past year, the purpose for which it was established.

TRI-STATE SOCIETY ANNUAL ASSEMBLY

Tri-State District Medical Society, Waterloo, Iowa, October 4, 5, 6, 7. Program taken up with addresses, essays and diagnostic clinics. Participated in by the physicians of Iowa, Illinois and Wisconsin, also prominent members of the profession from different parts of the country. All physicians who are in good standing in their state societies are cordially invited to attend and bring their families. A splendid time is assured. The program will appear later in this Journal.

NEW AND NONOFFICIAL REMEDIES

During March and April the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Nonofficial Remedies:

Abbott Laboratories:
 Elixir Barbitol Sodium.
 Anesthesin—Abbott.
 Aromatic Chlorazene Powder.
 Tablets Dichloramine-T—Abbott.
 Antoine Chiris Company:
 Barbitol—Chiris.
 Barbitol Sodium—Chiris.

Diaprotein Company:
 Diaprotein Prepared Casein Flour.
 Gilliland Laboratories:
 Schick Test (Gilliland).
 Streptococcus Vaccine (Gilliland).
 Heyden Chemical Works:
 Acetylsalicylic Acid—Heyden.
 Hollister-Wilson Laboratories:
 Ampoules Corpora Lutea Soluble Extract—Hollister-Wilson.
 Ovarian Residue—Hollister-Wilson.
 Capsules Corpora Lutea Desiccated—Hollister-Wilson.
 Tablets Corpus Luteum Desiccated—Hollister-Wilson.
 Pituitol Obstetrical.
 Pituitol Surgical.
 Lederle Antitoxin Laboratories:
 Pollen Antigen—Lederle (Spring Type).
 Lowy Laboratory, Inc.:
 Solution Arsphenamine—Lowy.
 Radio Chemical Corporation:
 Radium Bromide (Radio Chemical Corp.).
 Radium Carbonate (Radio Chemical Corp.).
 Radium Chloride (Radio Chemical Corp.).
 Radium Sulphate (Radio Chemical Corp.).
 E. R. Squibb & Sons:
 Bacillus Bulgaricus—Squibb.
 Vitalait Laboratory of California:
 Condensed Vitalait.

During May the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Non-official Remedies:

Dietetic Cellulose Co.:
 CellufLOUR.
 Intra Products Co.:
 Ven-Iron Cacodylate.
 Ven-Iron Cacodylate with Sodium Chloride.

GOOD NEWS CONCERNING ATOPHAN

In accordance with the promise made by Schering & Glatz, Inc., that, as soon as prices of the materials, and general conditions permitted, a reduction in the price of Atophan would be promptly announced, we are now informed, that beginning with April 1st, the price of Atophan direct to physicians, will be \$1.15 per box of twenty (7½ gr.) tablets, and that of the powder, \$3.00 per ounce carton, which includes postage and insurance.

Up-to-date druggists are well stocked with Atophan, or can promptly obtain a supply from their wholesale house, and there is, therefore, no excuse for delay in filling physicians' prescriptions.

Whenever a doctor fails to be satisfactorily served through the drug trade, we advise that he order direct from Schering & Glatz, Inc., accompanied by remittance at the above prices, to which he must add 1c for every 25c or part thereof, to cover war tax.

The Journal of the Iowa State Medical Society

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Vol. X	August 15, 1920	No. 8

"HOSPITAL PROGRESS"

The Catholic Hospitals of the United States and Canada Association have undertaken the publication of a magazine under the title of "Hospital Progress," which is to be the official organ of the Association.

The magazine presents a most attractive appearance. The first or May number contains forty-four pages of double column reading matter with several excellent illustrations.

The American College of Surgeons as soon as fully organized took up the question of hospital standardization. It had for some time been apparent that individual effort was insufficient to bring about the improvement in hospital administration necessary for the best medical and surgical results. At last through numerous addresses and papers hospitals which had been indifferent if not defiant became interested in a propaganda for better conditions. The sympathetic relations existing between Catholic hospitals established a prospective field of great interest in the standardizing of hospital work; it only needed an influential and liberal spirit to start the movement. The man for this work was found in the person of Father C. B. Monlinier of Marquette University, through whose untiring energy and devotion to the cause of hospital betterment, the Catholic Hospital Association was formed, and now the Association to further extend its usefulness has established a hospital magazine. There were several hospital journals in

existence before the appearance of this new enterprise, but for reasons we need not mention, the Catholic Hospital Association felt that more could be accomplished by establishing a publication of their own.

The medical activities of a hospital are practically the same under whatever name the hospital may be organized and the final result will be measured by the honesty of purpose. The leading editorial indulges in the usual criticism of the medical professional. "But, for the success of team work there are certain definite requirements, and the most important of these is harmony. In fact, it can be truthfully said that harmony is the *sine qua non*. It is no violation of a secret that states that this basis essential does not exist in the medical body of all hospitals. To the contrary, it would be nearer the truth to say that harmony is a jewel that is rare in the various organizations of medicine." We must admit that the medical profession falls short of the ideal but so it is with all other callings not excepting the clergy. May it not be true that much of this ill feeling among members of a hospital staff is directly referable to the hospital itself, through favoritism, neglect of some member's patients or transfer of one doctor's patients to another, either openly or secretly.

We welcome this periodical as another means of bringing together the hospitals and the medical profession in a closer relationship and by honest effort to bring about a better feeling of trustfulness.

REORGANIZING OF ST. JOSEPH'S HOSPITAL OF FORT WAYNE, INDIANA

According to the Journal of the Indiana State Medical Association for October, the above named hospital has taken an important step in the advancement of modern hospital activities. It is to be sincerely hoped that other hospitals will follow in rapid succession and that the medical profession will cooperate. The backward condition of most of our hospitals is in some measure due to the indifference of the doctors.

The St. Joseph's Hospital of Fort Wayne is among the first of the Indiana hospitals to adopt the hospital organization plan proposed by the American College of Surgeons and endorsed by the Catholic Hospital Association of America. This plan carries with it the organization of a training school for nurses, and a hospital staff, the members of the staff agreeing to the following:

1. To abide by the rules and regulations of the hospital and to adhere at all times to the well-

recognized, lofty principles governing the reputable practice of medicine and surgery.

2. To not engage in the division of fees under any guise whatever, or knowingly let any agent or associate so to do.

3. To take a constructive interest in the hospital and to cooperate in making it as potent a factor as possible in the preservation of public health in the community.

As a constructive policy for the hospital certain rules for the members of the staff have been laid down, and are as follows:

1. Monthly meetings.
2. Each doctor must get the patient's personal history.
3. Report of the physical examination, and working diagnosis.
4. In surgical cases, the operative sheet must, in order to be complete, contain everything done to the patient while in the operating room.
5. In medical cases a report must be made as to the treatment of the patient.
6. Note on the history sheet as to the progress of the patient.
7. Final diagnosis.
8. No verbal orders will be accepted. All orders must be put in order book.
9. All doctors appointed to give lectures to nurses must be prompt; if delayed, notify in time.
10. For all patients to be admitted to the hospital, arrangements must be made in the office.
11. Be it resolved that the practice of the division of fees is inconsistent with the policy of St. Joseph's Hospital, and that physicians and surgeons who divide fees are not permitted to practice in the hospital.

THE AMERICAN COLLEGE OF SURGEONS

The Minimum Standard

1. That physicians and surgeons privileged to practice in the hospital be organized as a definite group or staff. Such organization has nothing to do with the question as to whether the hospital is "open" or "closed," nor need it affect the various existing types of staff organization. The word staff is here defined as the group of doctors who practice in the hospital inclusive of all groups such as the "regular staff," and the "associate staff."

2. That membership upon the staff be restricted to physicians and surgeons who are (a) competent in their respective fields and (b) worthy in character and in matters of professional ethics; that in this latter the practice of the division of fees, under any guise whatever, be prohibited.

3. That the staff initiate and, with the approval of the governing board of the hospital, adopt rules, regulations, and policies governing the professional work of the hospital; that these rules, regulations, and policies specifically provide:

- (a) That staff meetings be held at least once each

month. (In large hospitals the departments may choose to meet separately.)

(b) That the staff review and analyze at regular intervals the clinical experience of the staff in the various departments of the hospital, such as medicine, surgery, and obstetrics; the clinical records of patients, free and pay, to be the basis for such review and analysis.

4. That accurate and complete case records be written for all patients and filed in an accessible manner in the hospital, a complete case, record being one, except in an emergency, which includes the personal history; the physical examination, with clinical, pathological, and x-ray findings when indicated; the working diagnosis; the treatment, medical and surgical; the medical progress; the condition on discharge with final diagnosis; and, in case of death, the autopsy findings when available.

5. That clinical laboratory facilities be available for the study, diagnoses, and treatment of patients, these facilities to include at least chemical, bacteriological, serological, histological, radiographic, and fluroscopic service in charge of trained technicians.

SOCIETY PROCEEDINGS

Adair County Medical Society

At a meeting of the Adair County Medical Association held here June 8th, Dr. E. I. Reynolds of Greenfield was elected president, Dr. E. R. Stroup of Fontanelle, vice-president, and Dr. J. A. Harper of Greenfield, secretary and treasurer. The association holds two meetings a year. Formerly officers were elected in December but this time of the year proved to be inconvenient for the members so the election of officers was changed until the June meeting.

Grundy County Medical Society

The Grundy County Medical Society met in Grundy Center Wednesday, June 23 for their annual business meeting and to elect officers. Dr. H. V. Kahler was selected president of the society for the coming year and Dr. G. A. Biebesheimer was elected treasurer. Dr. Heddins of Wellsburg was the choice for vice-president and L. B. Carpenter of Grundy Center, will continue to act as secretary. Plans were made at this meeting for a picnic in the near future.

Iowa County Medical Society

The Iowa County Medical Society, in regular semi-annual convention held at Williamsburg Tuesday, June 8, by a unanimous vote adopted a resolution to recommend to the Red Cross chapters of the county the employment of two nurses for visiting the schools of the county for the ensuing year.

One or two changes were made in the fee schedule, and a committee appointed to revise the schedule, in conformity with a resolution adopted by the Iowa State Medical Society House of Delegates in annual session last month, and to report at the next regular meeting.

The following doctors of the county were present: L. B. Amick of Millersburg, T. J. Shuell of Parnell, C. F. Noe and C. H. Hermann, Jr. of Amana, A. C. Moon, F. C. Schadt and C. F. Watts of Williamsburg, U. S. Geiger of North English, H. G. Moershel of Homestead, F. O. Blossom, L. S. Dietrich and W. P. Hutchins of Marengo.

Jones County Medical Society

The Jones County Medical Society and representatives from twenty-five of the surrounding towns, enjoyed a banquet Tuesday evening June 22, at Mercy Hospital at Anamosa. After a program, the matter of the amount to be charged for professional services was taken up, and upon thorough investigation by the State Medical Society, it was learned that the largest items of expense affecting the physicians today has raised from 246 to 350 per cent over the pre-war period. In view of the general advance in price of all commodities, the society recommended an advance over the charges now being made. The changes affecting the local residents are as follows: City visits during the day to be \$3; night calls \$5; country visits the same plus \$1 per mile; obstetrical cases, \$30 in the city and an additional charge of \$1 per mile for country cases; consultation with other doctors, \$5 in addition to the charges for the regular visit; anesthetic fees, \$10 for minor surgery and \$15 for major surgery. The Monticello physicians, as well as the others in the surrounding towns, have elected to adhere to these charges from June 23.

Linn County Medical Society

The annual meeting and election of officers of the Linn County Medical Society was held at Montrose Hotel, Cedar Rapids, June 8. The members of the society enjoyed a six o'clock dinner together; and following the dinner the important scientific program given by Chicago guests of the society was: A Plea for Decreasing Infant Mortality During the Second Stage of Labor, Dr. Edward L. Cornell of the Chicago Lying-in Hospital; Radium in the Treatment of Gynecologic Disorders, Dr. Carey Culbertson, Assistant Professor Gynecology, Rush Medical College.

Officers elected for the year are: President, A. W. Erskine, Cedar Rapids; vice-president, J. W. Gardner, Lisbon; secretary, R. C. Alt, Cedar Rapids; treasurer, H. M. Ivins, Cedar Rapids. Delegates to State Society, J. E. Stansbury and R. K. Keech, both of Cedar Rapids.

Marion County Medical Society

The Marion County Medical Society met in regular June session at the high school in Pella, the afternoon of June 23. The following papers were presented: Vertigo, Dr. George May, Des Moines. Pleurisy and Empyema, Dr. L. E. Park, Tracy. Medical Management of Nephritis, Dr. H. L. Bridgman, Knoxville. The subject of a uniform county fee bill

was discussed and a committee was appointed by the chair to draft a provisional fee bill and present the same at a subsequent meeting.

The visiting ladies were the guests of the wives of the Pella physicians at a matinee and tea in the afternoon.

In the evening a seven course dinner was served by the ladies of the Federated Club, followed by a program of music, readings, and impromptu talks by the medicos.

The following members and guests were in attendance; Roberts, Wright, Bridgman, White and Cornell, Knoxville; McClure, Bussey; Park, Tracy; Stafford, Lovilia; Ayres, Leighton; Smith, Granger; May, Des Moines; Keables, Newton; Harp and Van Voorhis, Prairie City; Fox, Carpenter, Sybenga, and Aschenbrenner, Pella.

Page County Medical Society

The semi-annual meeting of the Page County Medical Society was held at Shenandoah, June 10. The membership enjoyed a twelve o'clock dinner which was followed by a clinical program at Hand Memorial Hospital. Dr. E. J. Gottsch, Shenandoah, read a paper on The Indications for Blood Transfusion, Equipment and Methods Employed in Army Hospital near the Front Line, was interestingly portrayed by Dr. R. C. Danley, Hamburg. Dr. J. T. Strawn, Des Moines, who was a guest of the society at this meeting, presented a paper on Pyloric and Duodenal Obstructions.

Poweshiek County Medical Society

The annual meeting of the society was held at Brooklyn on June 8. The following members were present at this meeting: Drs. Busby, Simeral, Ringena and Barker of Brooklyn; L. F. Crain, Mattie Crain and Chester of Deep River; Williams and Barg of Montezuma; Somers, Talbott, Harris, Hopkins, Evans, Parish, Lauder of Grinnell; Wilcox of Malcom.

The president of the society, Dr. E. B. Williams of Montezuma read a valuable paper on Medical Ethics.

This was followed by a general discussion. The following were named officers for the ensuing year: President, Dr. E. B. Williams, Montezuma; vice-president, Dr. E. S. Evans, Grinnell; secretary, Dr. E. E. Harris, Grinnell; censor, Dr. L. F. Crain, Deep River; delegate, Dr. E. E. Harris, Grinnell; alternate, Dr. E. F. Talbott, Grinnell.

Dr. Barg moved that the secretary endeavor to ascertain what member of this society has agreed to take a lesser fee than our regular fee bill for casualty work. Carried. Moved that the committee on uniformity of fees be continued. Carried. Moved that committee on compensation be continued. Carried. Moved that the next meeting be held in Montezuma on the first Tuesday in September. Carried.

E. E. H., Sec'y.

Scott County Medical Society

A regular meeting of the Scott County Medical Society was held Tuesday evening, June 1, 1910, at Forest Park. Dinner at 6:30 p. m., meeting at 8 p. m.

Program—Dr. A. P. Donohoe, delegates—report and observations of the State Medical Society meeting. Dr. P. A. Bendixen—Certain Aspects of Contract Practice. Dr. A. L. Hageboeck—State Medicine in Europe.

Sioux Valley Medical Association

Dr. E. A. Jenkinson of Sioux City was elected president of the Sioux Valley Medical Association for the coming year at the twenty-fifth annual convention held at Sioux Falls. Other officers elected were: Dr. C. L. Sherman of Luverne, Minnesota, first vice-president; Dr. Goldie Zimmerman of Sioux Falls, second vice-president; Dr. J. A. Dale of Sioux City, secretary, and Dr. W. R. Brook of Sheldon, treasurer.

The Western Electro-Therapeutic Association

At the annual meeting in Kansas City, May 27-28, the following officers were elected for the ensuing year: President, Dr. B. B. Grover, (re-elected); first vice-president, Dr. S. Grover Burnett, Kansas City; second vice-president, Dr. H. W. Nye, Osborne, Kansas; treasurer, Dr. Chas. Keown, (re-elected), Independence, Missouri; secretary, Dr. Chas. Waud Fassett, Kansas City (three years); registrar, Dr. E. A. Nelson, (re-elected), Phillipsburg, Kansas; trustees, two years, Dr. W. P. Patterson and Dr. O. U. Need. The next meeting will be held in Kansas City in May, 1921.

DUTIES OF LOCAL BOARDS OF HEALTH

(Edited by Lieut.-Colonel W. S. Conkling)

The importance of co-ordinating the work of the various available agencies is not always appreciated to the extent it should be. The result of this being that a great deal of energy and money is expended without sufficient results to compensate the efforts. The Iowa State Legislature during its last session enacted a new law for the control of venereal diseases and it devolves upon the local health authority and the physicians of the state to function under this law. It is therefore considered advisable to submit to the physicians of the state the letter of instructions, which has been sent to every mayor in the state, on the problem of venereal disease control, especially that phase of the work which deals with law enforcement.

Dear Mayor:

By direction of the Iowa State Board of Health, the following instructions relating to the law on venereal diseases are herewith submitted for your information:

The real purpose of the law is to reduce venereal diseases, which are taking such a heavy toll in lives

every year. The local boards of health are responsible for the enforcement of the law, and have full authority as to which cases shall be quarantined or interned. (See chapter 299, acts 38th G. A.)

It may not be necessary to quarantine many; but the individuals who by their acts infect others, and those who do not take proper treatment, unless under control, should be considered a menace to the public health. The local boards have full authority as to the limit of the quarantine or internment, and the bills for expense for those persons who are unable to pay are handled in the same manner as other quarantine cases, namely; by being properly approved, and certified to and then presented to the board of supervisors for payment.

It is recommended that some plan of cooperation be established with the boards of health and supervisors in order that there may be perfect understanding. This could best be accomplished by a joint meeting to which should be invited some of the representative physicians of the county for their counsel.

The erection of an elaborate or expensive detention home or venereal hospital is not recommended at the present time, by reason that a state institution may be erected in the near future, and it is believed that the renting of a suitable building, or the use of a civil hospital would be a better plan for the present.

Venereal disease is an infectious, not a contagious disease, consequently placarding is not considered necessary. The individuals who contract venereal disease are unfortunate, but should not be looked upon as criminals, unless by their acts they infect others; but the real crime is in failing to secure proper medical treatment and thereby endangering others.

The board of health should encourage cooperation with the local physicians and by this means secure information as to the source of the infection of their cases. When these cases are located, proper action should be taken, remembering the purpose of the law is to reduce venereal disease, and whatever method will best do this is the one which should be employed. Some persons who are venereally infected can be relied upon to act in such a way as not to be a menace to the public health, while others by reason of their mentality, and low ideals of moral rights, must be restricted until cured.

The physicians have all been urged to assist the local health authorities in locating the sources of infection in their cases. The health officer (physician) should inspect all of these reports in order to take prompt action in any requiring same. If action has been taken by the local board of health, such a statement should be made and attached to the report. This would save the office of venereal disease control further correspondence relative to a case already acted upon.

The physicians may be given additional blanks, copies of law, and circulars of instruction in order to have a supply on hand, and this department should be advised of your need of more.

The Bureau of Venereal Disease Control Laboratories, maintained by the U. S. Public Health Service, and the Iowa State Board of Health, are placed at your disposal for this work, free even to the containers for Wassermann tests. The laboratories are also for the free use of every physician in the state.

By securing convictions against any diseased prostitutes, they can be transferred to Rockwell City, Iowa, where they are held a sufficient length of time to be cured. A limited number of cases requiring hospital care can be referred to the genitourinary department at Iowa City, Iowa, but it is recommended that communication be established with Dr. N. G. Alcock before any cases are sent. The county would be responsible for the payment of bills thus contracted, or, under the law for free hospital service, chapter 78, acts 38th G. A., they may be sent by the judge of the court, thereby becoming state cases.

Druggists are required to report the sale of any drugs, compounds, specific or preparation used for the cure of venereal diseases, (regularly licensed physicians' prescriptions excepted). Special report blanks similar to the physicians' blanks are furnished by the state board of health for this purpose.

Do not become discouraged—remember this is a big job, but worthy of our best efforts. The key-note to success is work, cooperation, and more work, with good judgment in handling the individual cases. It will cost some money, but it will be paid back many times over, and with big dividends.

For any further information address Bureau of V. D. Control, care State Board of Health.

Very truly yours,

WILBUR S. CONKLING,

A. A. Surgeon, U. S. P. H. S., Director, Venereal Disease Control, Iowa State Board of Health.

AQUA FLAVINE

(Edited by Lieut-Colonel W. S. Conkling)

The desire on the part of the average physician to use the best possible treatment in administering to the needs of their patient is most laudable. The present period is one of active medical investigation and, as a result of this, many new medical agents and methods of treatment are constantly offered to the medical profession. Very few of these newer ideas will bear the test of time although each will have its enthusiastic advocates who will continue to use it until some newer remedy attracts their attention, the patient being the innocent victim in this experimentation. It is for the purpose of avoiding this that the following paper has been prepared at the request of the editor of this section by Dr. Paul F. Stookey, Des Moines, Iowa. The doctor had a very extensive experience as an urologist in the A. E. F. and his opinion on the subject should receive favorable consideration.

The Treatment of Gonorrhea with Aqua Flavine

The use of aqua flavine in the treatment of gonorrhea has been reported at irregular intervals in the English, French and German literature. In the United States, Dr. John T. Geraghty of the urologic section of Johns Hopkins University reported his findings in a series of sixteen cases of gonorrheal urethritis treated with aqua flavine. Since that time numerous articles have appeared on the use of this drug as a therapeutic agent, with a wide divergence of opinion as to its value.

While on duty as assistant urologist in the embarkation center at Le Mars, France, the writer was detailed by Captain Harold G. Raycroft, M.C., U. S. A., area urologist, to ascertain if possible the value of aqua flavine in gonorrheal urethritis. With this end in view, one hundred cases of gonorrheal urethritis were admitted as special cases and placed under treatment with the yellow dye. An equal number of cases were used as controls and placed on routine treatment with the silver preparations and potassium permanganate. A daily record of each case was kept in which the amount of discharge, condition of urine (by the two glass method), and presence or absence of gonococcus in the smear, were noted.

In an effort to establish the value of aqua flavine as compared with the silver preparations, the follow-interpretation was placed on the word "cure" by Captain Raycroft.

1. The urethra to be free from discharge for ten days.

2. Both urine to be clear by the two glass method over a period of ten days.

3. Two successive prostatic smears to be gram negative for the gonococcus.

4. At the time of discharge as cured the lection bodies should be 80 per cent as compared with the pus cells in the unstrained smear.

5. Examination of the urethra with a bougie to reveal no pathological construction.

6. When the patient complied with the above requirements an installation of 3 c.c. of 2 per cent solution of silver nitrate was made behind the cut-off muscle. Twelve hours later two slides were made from the discharge. If the slides were negative for gonococcus, the case was discharged as cured.

Early in the investigation, it was found that in about five per cent of all cases the urethral mucosa was intolerant to aqua flavine in as great a dilution as 1 to 10,000. Efforts were made to alkalize the urine and to prepare the flavine solution in normal salt, without success. The resulting irritation from the drug was so severe that the treatment was discontinued.

The remaining cases were divided into three sections. An aqueous solution of aqua flavine was used on one section, flavine solution prepared with normal salt on the second section, while the third section received alkalis internally. Injection was administered by an assistant, using a plungerless syringe, morning and evening. The initial treatment was a 1 to 1000

dilution, which on the third day was decreased to 1 to 2000 and at the end of seven days it was again reduced to 1 to 5000. In addition, the chronic cases in this series received the routine management as to prostatic massage and dilatation. The most striking feature was the dissolution of the discharge on the third or fourth day, sixty per cent of the flavine cases were free from discharge. The urine would be clear or slightly hazy and a urethral smear not obtainable. The meatus would be everted, intensely inflamed and in forty per cent of cases, at the end of urination three or four drops of bright red blood would appear. These cases which showed a dry urethra and clear urine for a period of ten days would almost invariably show positive slides from the prostatic secretion. Of the few cases having clear urine, a dry urethra and a negative prostatic secretion, following the installation of a two per cent silver nitrate into the deep urethra, slides were positive in over fifty per cent of the cases.

Early in his experience with aqua flavine, the writer evacuated four cases as cured. Three of these were returned to the camp with recurrences. It is interesting to note that the recurrence which almost invariably occurs may be delayed as long as twenty days after treatment has been discontinued.

The per cent of cases developing epididymitis was slightly greater than the silver cases.

After eight weeks, aqua flavine was abandoned as a therapeutic agent in gonorrhea.

Conclusions—Aqua flavine is a powerful astringent, highly irritant to the urethral mucosa and without influence on the gonococcus.

NOTES FROM IOWA STATE UNIVERSITY

Don M. Griswold

The buildings for the Iowa State Psychopathic Hospital which was provided by the last session of the legislature is progressing rapidly.

The buildings are located on the new medical campus near the children's department of the University Hospital.

It is expected that patients will be admitted in the new buildings by January 1st.

Dr. Samuel Orton, the director of the new institution has been at the University Hospital during the past school year giving courses in neural pathology and allied subjects preparing the medical students for the work in clinical psychiatry.

The second floor of the University Hospital annex is being refitted to furnish temporary quarters for the psychopathic department and will be ready to admit patients by July 1st.

Dr. Lawson G. Lowery, recently chief medical officer of the psychopathic department of the Boston State Hospital has resigned to become assistant director of the Iowa State Psychopathic Hospital.

Dr. Lowery was previously instructor in neural pathology at Harvard University and resident physi-

cian at the Danvers State Hospital of Massachusetts.

The services of Dr. Orton and Dr. Lowery will be available to physicians throughout the state who have patients who do not care to leave their homes for examination or treatment.

Dr. Thomas P. Brennan of the Boston State Hospital, psychopathic department has recently been appointed instructor in psychiatry. Dr. Brennan was two and a half years in the psychopathic division of the United States Navy.

Dr. C. B. McGlumphy, assistant professor of bacteriology and pathology will leave July 15 for Vienna for advanced study and research in pathology and autopsy technic.

Dr. McGlumphy will leave Chicago with a group of American physicians and sail from New York on the Italian line for Triest.

Conditions are very favorable for Americans to study in Vienna at the present time. The American Medical Association of Vienna has been revived and every inducement is advanced for Americans to take advantage of the clinics and laboratories. The Austrian Government is to furnish quarters and food can be had from the American warehouses, so living conditions cannot be very bad. The difference in value of the American dollar and the Austrian mark makes the expense of the trip very moderate.

While there have been no serious outbreaks of typhoid reported to the State Board of Health thus far for this summer, typhoid is prevalent in many parts of the state. The State Board of Health wishes to remind the physicians that where there is a case of typhoid in a family that all members of the family should be immunized against the disease. The necessity for such action is two-fold, first because of exposure to the patient and second because of the fact that other members have probably been exposed to the same water, milk, etc., that brought the disease to the patient.

Typhoid vaccine is furnished free to physicians for such cases.

Miss....Bagley has recently been appointed chief nurse of the Psychopathic Hospital and will begin her duties July 1.

The University Hospital recently added to the staff a hospital hostess.

The position is one that many of the more progressive hospitals are creating and find that it fills a long felt want. The medical, nursing, social service and clinical departments of the hospital take care of the patient who enters but it remains for the hospital hostess to link up these services with the parents or friends at home.

If a stretcher case arrives at the hospital without an attendant, the hospital hostess writes or telegraphs the relatives or friends how the patient stood the trip. If it is an emergency case as soon as the

staff have made a diagnosis, that information is forwarded to the proper individuals. In case of a surgical operation or a critical medical condition, the parents or friends at home are kept advised of any change.

When a patient leaves the hospital for home it is the duty of the hospital hostess to notify the friends or relatives as to the train to meet and what kind of carriage the patient will need.

It is intended that this service shall provide the connecting link between the patient's home and the University Hospital, and shall furnish news of any patient's condition when the patient is not able to write.

Miss Anna Gordon is performing this service at present.

It was begun frankly as an experiment but the service that has already been furnished to people at home seems to fully justify it as a permanent part of the hospital organization.

Dr. E. M. Medlar, hospital pathologist, recently had his gall-bladder removed at the University Hospital. He is convalescing very nicely at the present time and will soon be attending his regular duties.

Dr. Harold L. Beye, assistant professor of surgery has fully recovered from the appendectomy that he recently underwent at the University Hospital.

After leaving the hospital, Dr. Beye went East for a short vacation before resuming his duties.

Dr. W. J. McDonald, director of the Student Health Service was recently called to Boston by illness in his family.

On arrival Dr. McDonald found three of his children quarantined for diphtheria. As the cases are comparatively mild, Dr. McDonald expects to return shortly to take up the physical examination of the summer session students.

A suite of rooms is being finished on the roof of the University Hospital for use of the pathological department. The rooms will be used to hold autopsies and for the care of animals used for laboratory purposes.

This will give the classes better opportunity to see gross pathology and autopsy technic.

A report emanating from Paris, Illinois, that a case of death from olive poisoning occurred there was copied in several papers in this state. The newspaper accounts gave "botulism" as the cause and went into detail describing this fatal poison.

The state epidemiologist made inquiry through the health officer of Paris, Illinois, and found that death was due to "bichloride and not botulinus."

Dr. Leon C. Havens, instructor in hygiene recently resigned to accept the position of instructor of immunology at Johns Hopkins University, Baltimore.

The first meeting of the Iowa X-ray Club was held at Iowa City, June 12, 1920. The headquarters were at the University Hospital. The program of scientific papers follows:

Morning—X-ray and Radium from the Internist's Standpoint, Dr. C. P. Howard, Iowa City.

The Importance of the X-ray in Modern Physics Research, G. W. Steward, Ph.D., Iowa City.

Pneumoperitoneum Demonstration (two patients), Dr. B. H. Orndoff, Chicago.

Afternoon—X-ray in the Diagnosis of Urinary Stones, Dr. N. G. Alcock, Iowa City.

Therapy X-ray and Radium, Dr. A. F. Tyler, Omaha.

Correlating Radiology and Surgery, Dr. Howard L. Beye, Iowa City.

About one hundred of the most prominent x-ray men in the Middle West were in attendance.

At noon the members of the local profession took their guests to the Iowa City Country Club for luncheon.

After the luncheon short addresses were given by Alden Williams, president-elect of the American Radiological Society and Charles Dutcher, attorney for the Iowa State Medical Society.

The privilege of the golf links was extended by officers of the club.

Among the physicians and their wives who were present were: Dr. and Mrs. Tyler, Omaha, Nebraska; Dr. and Mrs. Erskin, Cedar Rapids; Dr. and Mrs. Blocklinger, Dubuque.

Dr. Bundy Allen gave an informal dinner for Dr. Alden Williams president-elect of the American Radiological Society, and other guests from out of the state.

The state board of medical examiners held examinations for license to practice medicine June 16, 17 and 18. The examinations were held in the amphitheater of the medical building of the university. About fifty candidates took the examinations. Besides the recent graduates there were several men who have recently moved to the state to teach in the university or carry on some special work here.

Miss Kathryn Omstead, assistant secretary of the national organization for public health nursing gave a lecture on Nursing as a Profession, before the summer school students in the auditorium of the liberal arts building on Wednesday, June 23.

The lecture not only covered the work of the bedside nurse but more particularly that of public health nursing which is rapidly developing in a specialized field.

Miss Omstead described experiments in public health methods which are going on at the present time in an effort to standardize rural public health work. In both municipal and rural public health work, the public health nurse has been found to be the most valuable adjunct to the health officer in projecting the physician's influence into the home.

The trained staff for this work is far below the

number required at present and the need is growing rapidly all the time.

The purpose of Miss Omstead's address was to interest young women in nursing and in public health work.

The social service league is making as intensive survey of tuberculosis in Johnson county. Edith Countrymen and Isabelle Kellerman, public health nurses of this county, are in charge of this work and are attempting to locate every case of tuberculosis and to bring for examination every questionable chest condition.

This survey was considered necessary because of the large number of people who have been suffering from some chest condition since the attack of influenza last winter or one year ago.

Some very early cases have been brought to life and some persons, not definitely diagnosed as tuberculous have arranged to change their modes of sleeping and personal habits to improve their general health and ward off these conditions which threatened them.

Beginning with the next school year a course in public health nursing will be offered at the university.

The specialized work in public health nursing may be approached from two distinct sources: nurses who have completed two years of their training at the University Hospital may take the third year in the specialized work or women who have had two years training in liberal arts may take the specialized work, due credit being given for the liberal arts training.

It is intended that this course will serve as a feeder for the counties desiring public nurses and tend to standardize their training.

Miss Helena Stewart, graduate of Brown University, and the New York Hospital, training school for nurses, is to be in charge of the work. Miss Stewart was formerly director of public health nursing for the department of health of the State of Ohio and knows well the problems of public health and rural sanitation.

Professor Edward Bartow of the University of Illinois has recently been appointed head of the department of chemistry at the University of Iowa.

Professor Bartow is well known all over the United States for his water and sanitary survey work in Illinois. He is chairman of the committee on sewage disposal of the National Research Council and vice-president of the American Water Works Association. He is the author of several books and numerous reports on water supplies and sewage disposal.

Perkins Children to Have Exhibit for State Fair

Sick and crippled children in the Children's Hospital of the University of Iowa, where they are re-

ceiving free medical treatment and hospital care under the provisions of the Perkins law, are preparing an exhibit for the state fair at Des Moines this year. Many articles have already been made in basketry, raffia work, crocheting, knitting, sewing, yarn work, and drawing. The children doing this work are scholars in the school at the hospital.

About twenty-five or thirty pupils, many of whom never before attended school, go to class at the hospital each day, although the children are constantly coming and going. All subjects from beginning reading to Cicero and geometry are taught.—Iowa City Daily Press.

British Physician Will Send Son to Iowa Medical School

"It has been most interesting to me to note the wonderful progress in your medical schools, but I will say now that I was most struck with the college of medicine at the University of Iowa. I intend to send my son there for his medical studies."

Such was the parting word from an eminent British physician as he was about to embark at New York for his home in Great Britain. He had been spending a few weeks with a party of French and British physicians and surgeons visiting the leading hospitals and colleges of medicine in the United States.

The party made a thorough inspection of the Iowa medical school, including the Children's Hospital, and soon after leaving Iowa City another member of the group gave out an interview at Minneapolis saying that the medical college of the University of Iowa was the best thing they had seen up to that time.—Iowa City Daily Press.

Health Education

During the year the necessity for health education among teachers has become more evident and courses on the care of mothers and children for use in colleges and normal schools are being prepared under the Federal Board of Vocational Education. Undoubtedly the revelation of our recent draft rejections, showing that at least one-half the defects were such as might have been eliminated in childhood, has added impetus to the interest in the physical condition of our children; and the supplementary evidence of malnutrition and defects, as brought out by the weighing and measuring test, has helped focus public opinion on physical fitness.—Am. J. Pub. Health 9:350, 1919.

Samuel Torrey Orton

Director of the Psychopathic Hospital and Professor of Psychiatry, State University of Iowa,
Iowa City

Biographical Sketch

Born, October 15, 1879, Columbus, Ohio. Educated in public schools of Columbus, Ohio, and in Mr. Taft's school, Watertown, Connecticut. Grad-

uated from Ohio State University 1901, with a degree of B.S. Graduated from University of Pennsylvania 1905, degree of M.D. Graduated from Graduate School of Harvard University 1906, degree A.M. Interne and assistant in pathology, Boston City Hospital, July, 1905, to June, 1907. Pathologist, Columbus State Hospital, Ohio, 1907. Pathologist, St. Ann's Hospital, Anaconda, Montana, 1908-1909. Pathologist, Worcester State Hospital, Massachusetts, 1910-1913. Clinical director and pathologist, Worcester State Hospital, Massachusetts, 1913. Special student psychiatrisches Klinik Breslau, winter of 1913-1914. Clinical director and pathologist, Pennsylvania Hospital, Philadelphia, 1914-1919. Scientific director, Pennsylvania Hospital, Philadelphia, 1919. Member of—American Neurological Association, American Association of Pathologists and Bacteriologists, American Medicopsychological Association, American Psychopathological Association, American Association for the Advancement of Science.

Lawson Gentry Lowry, A.M., M.D.

Assistant Director of the Psychopathic Hospital and
Assistant Professor of Psychiatry, State
University of Iowa, Iowa City

Biographical Sketch

Address, 74 Fenwood road, Boston, Massachusetts. A.B. University of Missouri, 1909. A.M. University of Missouri, 1911-1912 and at Harvard 1912-1913. M.D. Cum Laude, Harvard, 1915. Assistant in anatomy, University of Missouri, 1909-1910. Professor of anatomy and histology, University of Utah, 1910-1911. Assistant professor of anatomy, University of Missouri, 1911-1912. Teaching fellow in histology and embryology, Harvard Medical School, 1912-1914. Instructor in neuropathology and in psychiatry, Harvard Medical School, 1918. Pathologist, Danvers State Hospital, 1914 to February, 1917. First assistant physician, psychopathic department, Boston State Hospital, February to June, 1917. Chief of staff, psychopathic department, Boston State Hospital, June, 1917 to April, 1918. Chief medical officer, psychopathic department, Boston State Hospital, April, 1918. James Jackson Cabot Research Fellow, Harvard Medical School, 1916-1917.

Thomas Phillip Brennan, B.S., M.D.

Assistant Physician in the Psychopathic Hospital and
Instructor in Psychiatry, State University of
Iowa, Iowa City

Biographical Sketch

Born, St. Louis, Missouri, September 7, 1888. Graduated from high school, Clearwater, Kansas. Graduated from St. Louis University, 1912. Majored in philosophy and English. Winner philosophical medal, both junior and senior years. Received bachelor of science degree 1912. Summer course, Missouri University, 1912. St. Louis University of Medicine, 1912. Nineteen hundred sixteen M.D. from

this school. Student instructor anatomy and histology, 1914-1915. One year internship at St. Louis City Hospital, 1916-1917. U. S. Navy, April, 1917 to November, 1919. Instructor in U. S. Naval Hospital. Corps training school, U. S. Naval Training Station, San Francisco, California. Boston Psychopathic Hospital, assistant medical officer, December, 1919.

Oscar H. Plant

Head of Department of Materia Medica and Pharmacology, State University of Iowa, Iowa City

Biographical Sketch

M.D. University of Texas, 1902. Demonstrator of physiology, University of Texas, 1901 to 1905. Demonstrator of physiology and pharmacodynamics, University of Texas, 1905 to 1911. Lecturer in dietetics, University of Texas, 1907 to 1911. Instructor in pharmacology, University of Pennsylvania, 1911 to 1915. assistant professor of pharmacology, University of Pennsylvania, 1915 to 1919. Professor of pharmacology, University of Pennsylvania, 1919 to 1920. Member—American Physiological Society, American Society of Pharmacology and Experimental Therapeutics, Society of Sigma Xi (Pennsylvania Chapter).

Don Morse Griswold

Associate Professor, Hygiene and Preventive Medicine, State University of Iowa, Iowa City

Biographical Sketch

College, Michigan Agricultural College, school years of 1902-1903. Ferris Institute, pharmacy department, 1905, degree, graduate in pharmacy. Ferris Institute, college preparatory department, 1906, graduated. Diploma but no degree. University of Michigan, school of medicine, 1912, degree M.D. Detroit College of Medicine and Surgery, post graduate public health course, 1915. Master's degree in public health. Internship St. Eriks Hospital, 1912. Nineteen hundred thirteen—Resident physician, Herman Kiefer Hospital. (Detroit Municipal Hospital for contagious diseases.) Nineteen hundred fourteen—Director of laboratory, Detroit department of health. Instructor in hygiene, Detroit College of medicine and surgery. Nineteen hundred fifteen and sixteen—Rockefeller Foundation and international health board. Field director for Antigua, British West Indies. Nineteen hundred seventeen—Rockefeller Foundation, international health board, state director for Arkansas. Nineteen hundred eighteen—United States Army, assistant division surgeon, 97th Division. Nineteen hundred nineteen—Director of medical service, Detroit department of health. Assistant professor hygiene, Detroit College of Medicine and Surgery.

Physicians about the state are becoming acquainted with the facilities for clinical instruction in special lines of work at the University Hospital during the summer months.

These special courses provide fine opportunity for

combining advanced medical study with the summer vacation.

Fourteen physicians have been enrolled in the course conducted by Dr. L. W. Dean, in the eye, ear, nose and throat specialties. Their names are as follows: Adolph Arent, of Callender; Harry C. Payne, Monroe; Asaph Arent, Humboldt; Edward L. Warson, Bode; C. H. Mitchell, Leon; C. F. Dolmage, Buffalo Center; C. A. Miller, Nevinville; George A. Spaulding, Avoca; Robert W. Robb, Blanchard; J. R. Thompson, Waterloo; Morris Moore, Walnut; C. P. McHugh, Sioux City; J. L. Scripture, Clarksville; L. W. Clark, Chester.

MEDICAL NEWS

Meeting American College Surgeons 1920

The next meeting of the American College of Surgeons is to be held in Montreal, during the week commencing the eleventh of October. The headquarters will be Windsor Hotel. This will be the first meeting outside of the United States. It is expected that about two thousand fellows of the college will be in attendance. Daily clinics will be held in the English and French hospitals. The clinics will embrace surgery and the surgical specialties, and already arrangements are well under way. It means a big effort. The numbers are large, but our facilities are large, and by good organization it is hoped that all the Fellows may be accommodated.

In the afternoons there will be held in the Windsor Hall, demonstrations of living cases showing end results, methods of treatment, etc. These demonstrations, which are called dry clinics, may prove most interesting and "dry" only in name.

There will also be held evening meetings, for which an interesting program is being prepared. The last evening meeting, will be the convocation, when new members will be admitted to fellowship. A number of distinguished foreign guests are expected from France and from Great Britain.—*Journal Canadian Medical Association.*

Missouri Surgeons to Organize a State Clinical Congress

At a meeting of Missouri surgeons, held in St. Louis on May 2, a Missouri section of the Clinical Congress of the American College of Surgeons was organized. An executive committee was appointed to arrange plans for the first meeting which will probably be held in the early fall. This committee is composed of Dr. Harvey G. Mudd of St. Louis, Dr. William H. Luedde of St. Louis, and Dr. Jabez N. Jackson of Kansas City.

The Ohio members of the American College of Surgeons met in Cincinnati on May 6, when a state organization was perfected and the following officers elected: Chairman, Dr. Charles C. Hamilton, Columbus; secretary, Dr. J. Edward Pierrung, Cincinnati; counselor, Dr. Walter H. Snyder, Toledo.

A state organization of the Indiana members of the American College of Surgeons was formed at a meeting held in Indianapolis, on May 7, and the following officers were elected: Chairman, Dr. Miles Porter, Fort Wayne; secretary, Dr. E. D. Clark, Indianapolis; counselor, Dr. James Y. Welborn, Evansville.

American Society of Tropical Medicine

At the sixteenth annual meeting of this society, held April 26 and 27 in New Orleans, the following officers were elected: President, Dr. John M. Swan of Rochester, New York; vice-presidents, Dr. Karl F. Meyer of San Francisco and Dr. Victor G. Heiser of New York; secretary-treasurer, Dr. Sidney K. Simon of New Orleans (re-elected); assistant secretary, Dr. Allen J. Smith of Philadelphia; councilors, Dr. George Dock of St. Louis; Dr. C. L. Furbush of Philadelphia; Dr. J. F. Siler of Washington, D. C.; Dr. J. H. White of Philadelphia, and Dr. Charles S. Butler of Philadelphia.

Surgeons Elect Officers

At the annual meeting of the Chicago Surgical Society, June 4, Dr. William Fuller was elected president; Dr. Vernon David, vice-president; Dr. Frederick G. Dyas, secretary, and Dr. Charles F. Sawyer, treasurer.

Members of Class of 1891 of Keokuk Medical College Re-Union

Dr. Moorehead and Dr. Kinnamon of the faculty; Dr. J. R. Hollowbush, Rock Island; Dr. Cobb, Dr. A. M. Pond, Dubuque; Dr. Henry Clay Young, Dr. Isaac M. Lovett, Dr. William L. Gray, Dr. Alois I. Blickham, Dr. R. G. Callihan, Dr. William K. Githens, Quincy, Illinois; Dr. J. D. Chittum, Sorento, Illinois; Dr. Albert C. Armitage, Dr. R. J. McConnell, Dr. S. B. Pennington, Dr. J. F. Herrick, Ottumwa; Dr. J. Whitfield Smith, Bloomington, Illinois; Dr. Louis E. Vermillion of Lyons, Kansas, who was called away yesterday by the death of his grandson; Dr. Ladd of Cedar Rapids.

In addition to these physicians, Dr. Robert M. Lapsley and Dr. G. Walter Barr of this city were present at the banquet. Dr. Barr making an interesting talk upon that occasion on the old College of Physicians and Surgeons. Mrs. A. M. Pond, Mrs. H. C. Young, Mrs. Q. M. Lovett and Mrs. H. A. Kinnamon, wives of the doctors, were also banquet guests.

Archives of Surgery

This new journal will be devoted to the advancement of American surgery, in the same way as the other special journals published by the American Medical Association are devoted to the advancement of the specialties they represent: Internal medicine, diseases of children, neurology and psychiatry, and dermatology and syphilology. The personnel of the editorial board consists of Dr. Hugh Cabot, pro-

fessor of surgery, University of Michigan, Ann Arbor; Dr. Thomas Cullen, professor of gynecology, Johns Hopkins University, Baltimore, Maryland; Dr. William Darrach, professor of surgery, Columbia University College of Physicians and Surgeons, New York City; Dr. Evarts A. Graham, professor of surgery, Washington University, St. Louis, Missouri; Dr. Dean D. Lewis, professor of surgery, Rush Medical College, Chicago, and Dr. W. J. Mayo, the Mayo Clinic, Rochester, Minnesota. The positions in American surgery of the group of men who have accepted the responsibility for the editorial standard of the new journal will indicate its scientific scope and character. Coming from the press of the American Medical Association it is unnecessary to say that it will be, mechanically and typographically, equal to any similar publication in any language. This will especially apply to the illustrations: drawings, photomicrographs, half-tones, in color or in black and white, will be liberally used. The first number will appear, July 1.—*Jour. A. M. A.*, June 12, 1920.

Dr. Sarah R. Kelman, director of the Keokuk clinical and pathological laboratory, a branch of the state laboratory of Iowa City, will discontinue in this capacity July 1, the laboratory having been purchased by the Graham hospital and will be managed by the organization.

Medicine and Chiropractic

Chiropractic has won out in Illinois under a ruling of Judge Ramsey of the circuit court. The action against this system of healing was brought under an injunction to restrain chiropractors from practicing without a license from a regular school. This of course meant no license.

Until there is presented to the world a healing science which is unerring in treatment, there will be those who will question the idea of limiting the treatment of the sick to the care of any particular school whether it uses pills, a hammer or a knife. That a science has yet appeared with a panacea that is unfailing in its action will continue to be disputed.

In the last 2,000 years even the regular school has been forced constantly, from generation to generation, to change its methods until today we find the antitoxins and the knife substituted for red sea scorpions and the bleeding cup. The panacea is still an elusive quality, however. And in this connection it may be remembered that one of the greatest physicians of them all once said:

"This is the way; walk ye in it," and he healed without medicine by using a law which he said time and again others could use if they grasped or understood His teachings. It seems, therefore, natural to assume that there is still much to learn in the way of a positive, unfailing method of healing notwithstanding the magnificent and brilliant progress that has been through the centuries by that honored class of men who represent what is known as "the regular school" of physicians.—*Davenport Democrat*.

PERSONAL MENTION

Dr. C. G. Morehouse, of Waukon, has sold his practice to Drs. Svebakken and Rominger, and is now in the East taking post-graduate work in surgery at the Harvard Medical School under the direction of the board for vocational education. Dr. Morehouse gives up his practice at Waukon on account of disability resulting from wounds received while on duty in France.

Dr. Robert A. Buchanan, who has been serving a year as hospital intern at Winnepeg, has returned home and become associated with his father in the practice of medicine.

Dr. L. A. Royal of West Liberty, was elected president of the Iowa Homeopathic Association at the recent Des Moines session.

Dr. Leonard West of Iowa City has located in Waverly as assistant to Dr. W. A. Rolf.

Dr. Harold Butts, who has completed his intern service at the University Hospital at Iowa City, will locate in Waterloo.

The Mary Putman Jacobi Fellowship for 1920-21 has been awarded to Dr. Sophie Getzowa, University of Berne, Switzerland.

Dr. Chester H. Clark, who served as post surgeon at the Rock Island arsenal during the World War, has returned from Paris, where he spent four months studying medicine and will resume his practice in Davenport. Dr. Clark was among the first physicians to volunteer his service when America entered the conflict.

Dr. Charles A. Smith, for seven years chief medical director of the Yeomen, will be succeeded in the office by Dr. Oliver G. Winters who has been assistant to the chief medical director since 1905.

Dr. L. W. Dean, dean of the college of medicine, S. U. I., has been newly honored in the East. At Boston, the Iowa scholar, a former Muscatine man, was elected president of the American Laryngological, Rhinological and Otological Society for the ensuing year. This is a great national body of ear, nose and throat specialists. Iowa University is recognized as an institution of paramount importance in that field, and many Eastern surgeons direct their patients here for examinations by experts at S. U. I.

OBITUARY

Dr. E. E. Wuttke of Summer died at St. Bartholomew's Hospital, New York City, June 5, 1920. Dr. Wuttke was born near Sumner, March 19, 1878, graduated from the University Medical College, Kansas City, Missouri, 1906.

Dr. John G. Thomas of Monticello died at his home June 11, 1920. Dr. Thomas was born at Klosters, Graubursden, Switzerland, August 28, 1878. He was graduated from the University of Wuertzburg, Bavaria, and came to Monticello one year later where he practiced until the time of his death.

Major General William Crawford Gorgas died in London early in the morning of July 4, 1920. Born in Mobile, Alabama, October 3, 1854; son of General Josiah (C. S. A.) and Amelia (Gayle) Gorgas; A.B. University of the South, 1875; M.D. Bellevue Hospital Medical College (New York University) 1879; interne, Bellevue Hospital, 1878-80 (hon. Sc. D. U. of Pa., 1903; U. of the South, 1904; Harvard, 1908; Brown, 1909; Jefferson Med. Col. 1909; LL. D. U. of Ala., 1910; Tulane, 1911; married Marie Cook Doughty, of Cincinnati, September 15, 1885. Appointed surgeon U. S. A. June 16, 1880; captain, assistant surgeon June 16, 1885; major brigade surgeon vols., June 4-July 6, 1898; major surgeon July 6, 1898; chief sanitary officer of Havana and in charge of sanitary work there, 1898-1902; applied methods of combating yellow fever which eliminated that disease in Havana; col. asst. surgeon-gen. by special act of Congress, for yellow fever work at Havana March 9, 1906; surgeon-general, U. S. A. with rank of brig-gen., January 16, 1914; major-general, U. S. A., March 4, 1915; retired December 1, 1918; director yellow fever research, Rockefeller Foundation. Appointed chief sanitary officer Panama Canal, March 1, 1904; member Isthmian Canal Committee, March 4, 1907. Permanent director interstate health board of health of Rockefeller Foundation. Recipient of Mary Kingsley medal from Liverpool School of Tropical Medicine, May 27, 1907; gold medal Am. Mus. of Safety, 1914. Hon. Fellow N. Y. Acad. Medicine, 1908; asso. Fellow College of Physicians of Philadelphia; associate member Societe' de Pathologic Otolique, Paris, 1908; president A. M. A. 1908-09; Am. Soc. Tropical Medicine, 1910; member Am. Pub. Health Ass'n, Ass'n Mil. Surgeons, U. S., del. 1st Pan-Am. Med. Congress Santiago, Chile, 1908; hon. mem. Ass'n Am. Physicians. Awarded D. S. M. 1918; comdr. Legion of Honor (French), 1919; Grand Officer Order of the Crown of Italy, 1918.

Dr. Wm. Iseminger of Denison died at his home June 21st at the advanced age of eighty-four years.

Dr. Iseminger was born near Westville in Laporte county, Indiana, July 10, 1836. Graduated from De Pauw University—the class of 1862, and from medical department of Michigan University, 1865. Began practice in Denison, Iowa, 1868, where he resided until the time of his death, a service of fifty-two years.

William Pollock Crumbacker, Independence, Iowa; Medical College of Ohio, Cincinnati, 1882; aged sixty-two; a member of the Iowa State Medical Society; superintendent of the Independence State Hospital since 1902, assistant physician of the Athens (Ohio) State Hospital from 1884 to 1889, and superintendent of the institution from 1890 to 1892; superintendent of the West Virginia Hospital for the Insane, Weston, from 1893 to 1897; a member of the American Medico-Psychological Association, and

contributor of numerous articles to the literature of hospital management and neuropathology; died May 14, 1920, from pneumonia.

Dr. A. J. Davis of Charleston, Iowa, died Tuesday morning, June 17, at 5:40 o'clock at the home of his daughter, Mrs. J. E. McMillen, 314 Belknap place, Keokuk, Iowa. Dr. Davis had been in poor health for several years and seriously ill with heart trouble for the last year.

He was a native of Adams county, Illinois, born there in 1845, being about seventy-five years of age. He lived most of his life in Iowa, practicing his profession of medicine for forty-five years at Charleston, being a typical family doctor.

Doctor John Sumner Green died at the home of his son, Dr. H. O. Green, in Spencer, Wednesday morning, June 12, 1920.

Doctor Green was born in Saratoga county, New York, on October 30, 1828. When a boy he came with his parents to Warren county, New York, where he grew to manhood and where he received his education in the common schools and this was supplemented by a course in a seminary after which he determined to take up the study of medicine with the purpose of making the practice of it his life work. He entered and was graduated from a medical college at Castleton, Vermont. After his graduation he entered upon the practice of his profession in Warren county, New York.

In 1855 he came to Iowa and was, for some time, located in Hardin county and afterwards located in Postville, Fayette county, where he remained until their coming to Spencer in 1894. The Doctor was never active in practice after coming to Spencer.

Dr. Kenneth A. J. Mackenzie was born in Manitoba, January 18, 1859, and died at Portland, Oregon, March 15, 1920. He was educated in Scotland, in Montreal, and in Toronto, and received his medical education in McGill University, from which he graduated in 1881. He followed this by a trip abroad and became a licentiate of the Royal College of Physicians and Surgeons of Edinburgh. In 1882 he came to Portland, where his life became a part of the community of medicine in the medical department of the University of Oregon, and, although his tendencies were surgical; he served with distinction in that capacity. Later he became professor of surgery and with the retirement of Dr. Josephi in 1912 he was elected dean of the faculty.

Dr. John Charles Fremont Newlon was born in Edgar Co., Ill., in 1856. He came with his parents to Cass county, Iowa, where he resided until he entered the medical department of the Iowa State University, where he remained for two years. He then went to Keokuk Medical College, where he remained until his graduation March 2, 1881. He practiced his

profession for a short time in Illinois after which he moved to Cass county, Iowa.

In 1883 he was married to Elizabeth Walker. He came to Exira in 1893 where he has lived continuously until his death. Elizabeth Walker Newlon died September 14, 1901. In 1909 he was married to Dorothea Gilroy, with whom he lived until his death, which occurred March 28, 1920.

Dr. Thomas D. Starbuck, prominent physician of Davenport, died at 12:30 o'clock May 11 at Mercy Hospital, Davenport, following an illness of about two weeks. Death was due to blood poisoning resulting from the extraction of a diseased tooth. For the past week his condition had been slowly getting worse and the physicians held out little hope for his recovery.

The deceased was one of the foremost representatives of the medical profession in Davenport and his death will be widely mourned. His widow, Mrs. Ludo Bruning Starbuck, survives him. Other survivors are one sister-in-law, Mrs. C. C. Starbuck of Davenport and one nephew, Dr. Ray Starbuck of Briceland, Minnesota.

Dr. Starbuck was born in Winchester, Randolph county, Indiana, January 24, 1872. He took up medicine at the State University of Iowa. He was graduated in 1902 and immediately came to Davenport.

Dr. Wyndon Davis, recently of Iowa City and S. U. I., died of scarlet fever at Detroit, Michigan, in the Harper Hospital, where he was appointed an interne after graduation in April. He was married in March, 1920 to Miss Agnes McEwen of Orange City, who survives.

Millard Fillmore Pritchard was born in Oregon, Wisconsin, May 4, 1852 and died at his home in Cherokee, November 22, 1919, at the age of sixty-seven years, six months and eighteen days.

Early in life he had a strong desire to become a physician and made arrangements with Dr. Hart of Janesville to enter his office and use his medical books. He spent two years at the State University at Madison and finished his course at the Hahnemann Medical College in New York City.

In 1874 Dr. Pritchard located in Cherokee and commenced the practice of his profession, spending forty years of continuous service here, enduring the discomforts and hardships common to doctors of early days. Dr. Pritchard was a family physician in every sense of the term and was greatly respected and loved by his patients, a number of whom came long distances to see him during his illness.

August 25, 1892, Dr. Pritchard was united in marriage to Miss Flora Idella Corbett, who survives him.

Dr. A. Anderson of Estherville, Iowa, died May 12, 1919, of angina pectoris. Dr. Anderson was born December 5, 1861; graduated from State University of Iowa March 12, 1890; practiced one year at Palo, Iowa, and the rest of his career was in Estherville,

Iowa. Dr. Anderson was the founder of the Anderson Hospital.

July 14, 1919.

Whereas, Death has entered the ranks of the Polk County Medical Society and removed from our midst Dr. H. B. Hibbs.

Be It Therefore Resolved, That we feel that in his death the society and the profession have lost a true friend and brother in the fullest meaning of the word.

Be It Therefore Resolved, That the Polk County Medical Society extend to the bereaved family and friends our sincere sympathy in their loss; that a copy of these resolutions appear in the minutes of the society, and a copy sent to the family.

(Signed) D. F. Crowley,
F. E. V. Shore,
T. F. Duhigg.

The following resolutions were adopted by the Scott County Medical Association, at its regular meeting, held June 1, at Forest Park:

Whereas, The Scott County Medical Society has lost, through the death of Dr. Thomas D. Starbuck, on May 11, 1920, a valued and honorable member, whose many virtues as a man and citizen, and whose years of conscientious service as a practitioner of medicine in this city have endeared him to his fellow physicians and the members of this community;

Be It Resolved, That the Scott County Medical Society express hereby its sense of the loss it has sustained, in token of which this resolution shall be entered in the minutes of the society, and

Be It Further Resolved, That a copy of this proceedings be sent to Mrs. Thomas D. Starbuck, as an expression of the society's sympathy for her in her bereavement.

MARRIAGES

Dr. E. C. Montgomery of Atlantic and Miss Neta Elma Kingals of Atlantic.

Dr. Kurt Jaenicke and Miss Hannah Mary Leimbach, all of Clinton. Dr. Jaenicke served through our participation in the war; for a time was stationed at Coblentz, with rank of major.

Dr. George P. Wilkinson and Miss Mary M. Johnstone, both of Keokuk.

Dr. L. K. Gundrum of Fontanèlle and Miss Ethel Martin of St. Louis, Missouri.

Dr. William B. Mantle of Albion and Miss Vera H. Lackey, also of Albion.

Dr. Henrichs of Manson and Miss Meta M. Juhl of Ashland, Wisconsin.

Dr. Will Thornburg of Yale and Miss Adele Finaldi of Des Moines.

Dr. Arch O'Donoghue of Storm Lake and Miss Helen Dougherty of Guthrie Center.

Dr. Isom Rankin of Morning Sun and Miss Dorothy Bemis of Bondurant.

BOOK REVIEWS

PRINCIPLES AND PRACTICE OF PHYSICAL DIAGNOSIS

By John C. Da Costa, Jr., M.D., Ex-Associate, Professor of Medicine, Jefferson Medical College, Philadelphia. Fourth Edition, Thoroughly Revised, Octavo of 602 Pages with 225 Original Illustrations. W. B. Saunders Company, 1919, Cloth \$4.75.

Five years ago, the third edition of this work appeared. In that time some new methods of inquiry have come into use and a more accurate evaluation of laboratory tests and the use instrumental means of examination made.

Physical examinations for the purpose of accurate diagnosis requires the highest order of mental culture. A full equipment of instruments of precision may indeed have little to do with a good diagnosis. An analytic study of the signs and symptoms presented by the patient is of first importance. The history of physical diagnosis is an interesting one and extends over a period of many years and includes the contributions of many men. The testing out of physical signs by post-mortem examinations little by little placed in the hands of acute observers a fund of knowledge to be co-ordinated by men fitted for this purpose and published in systematic works on physical diagnosis. Great Britain produced a group of observers of great skill who laid the foundation and Philadelphia a group of observers and co-ordinators who have furnished us treatises on physical diagnosis, the most distinguished of which have been the Da Costas and to them we have looked from time to time for a book that will give us the latest word and now we have before us a fourth edition recently published, which will continue to guide the physician and student in the most intellectual fields in medicine.

PASTEUR—THE HISTORY OF A MIND

By Emile Duclaux, Late Member of the Institute of France, Professor at the Sorbonne and Director of the Pasteur Institute. Translated and Edited by Erwin F. Smith and Florence Hedges, Pathologist of the U. S. Department of Agriculture. Octavo of 363 Pages, Illustrated. W. B. Saunders Company, 1920. Cloth \$5.00 Net.

There is no character in modern history that presents more features of interest than that of Louis Pasteur, considered from the standpoint of gifts of mind and from the standpoint of service to mankind.

In 1906 McClure Phillips & Co. published a biography of Pasteur by R. Vallery-Radot which set forth the events in the great scientist's life in a most engaging manner. We have read this story time and time again, always with feelings of emotion, always with the thought that the world could never fully appreciate the debt owed this man for

what he had done. Now another pleasure comes to us in a new book, a study of the mind of Pasteur by one of France's great writers, a difficult task indeed, but worthy of the best thought.

The great accomplishments of Pasteur are so well known that we shall refer to them only incidentally. The translator informs us that by accident, he discovered this book in a second hand book store some fifteen years after the author's death. It appears to have escaped notice at least outside France. The distinguishing character of this book is to consider the state of knowledge at the time Pasteur made his investigation and what were the mental processes that led to these investigations.

It appears that there were missing links in the chain of essential scientific facts to render a certain theory tenable.

In Pasteur's first experimental work on Crystallography certain phenomena appeared that could not be reconciled without a painstaking revision of the knowledge possessed at that time. The fact that the rotation of the plane of polarization of quartz crystallization, sometimes to the right and sometimes to the left were not satisfying that the crystals were not indifferently right handed or left handed crystals. Pasteur discovered that the angle cut by the facets determined the polarization. By separating out these crystals—a most trying process—the mystery was explained. The writer undertakes to follow the mental processes involved in this line of experimentation.

The second attempt to follow out Pasteur's mental operations was the field of fermentation. Certain facts had been observed in breweries, many experiments had been made to explain the nature of fermentation, but not until Pasteur had entered the field was it known that a living organism was the cause of the remarkable changes.

A third period in Pasteur's life of experimentation was the long controversy with numerous scientists on spontaneous generation commencing with Buffon, Needham and others ending with Bastian. The present writer recalls the two volume work of Dr. Bastian who for a time almost proved to biologists the alleged fact of spontaneous generation.

The fourth, fifth and sixth periods of productive mental activity is found in the industrial methods in the manufacture of wines, vinegars, beer and the silk worm diseases which had an important influence on the industries of France, which covered a period of several years and saved the silk industries of France. The intricate workings of Pasteur's mind at this time is in itself a wonderful psychological study.

Two more periods in Pasteur's life engage our attention; studies on the Etiology of Microbial Diseases and the Study of Viruses and Vaccine.

The preceding studies had prepared the mind of Pasteur to contend with the greatest problems of the world so far as affects human life. In each one of these periods as a study of this book will show, the fundamental scientific facts had fallen short of

full development, and a revision of the knowledge then possessed was necessary to serve as a beginning point. Much has happened since Pasteur's death but a secure foundation had been laid upon which to build. It is a comfort to reflect that this master mind lived to see the full fruition of a life filled with the remarkable discoveries that completely revolutionized biologic science. So filled have we been with admiration for this great man and his work, that we cannot refrain from insisting that every student of medicine, before he goes out into his life's work, read with care Pasteur. *The History of a Mind* by Emile Duclaux and *The Life of Pasteur* by Rene Vallery-Radot.

ORTHOPIDIC AND RECONSTRUCTION SURGERY—INDUSTRIAL AND CIVILIAN

By Fred H. Albee, M.D., F.A.C.S., Professor and Director of Department of Orthopedic Surgery at the New York Post-Graduate Medical School and at the University of Vermont. Octavo Volume of 1138 Pages with 804 Illustrations. W. B. Saunders Company, 1919, Philadelphia and London. Cloth \$11.00 Net.

The production of this great work is based on an enormous personal experience in civil and military practice, closely related to military surgery which is receiving large attention and will grow in importance with the more complete organization of the industries. Formerly, it was thought sufficient to provide for the immediate emergency needs of injured men with more or less indifference as to future results and conditions. The new evaluation of man power has led to more careful thought as to reconstruction of damaged human machines and restoration to service.

Dr. Albee after several years' work in special lines of reconstruction, and with the aid of the Saunders Publishing Company, has placed within reach of the profession a systematic treatise on orthopedic and reconstruction surgery. After a brief introduction the subject of tuberculosis of bones and joints is taken up, particularly tuberculosis of the spine. Focal infection, a much discussed subject, is taken up in relation to joints and considered in a conservative and broad way. In the same connection comes infectious diseases of bones and joints, including chronic infections, arthritis, arthritis deformans, degenerative arthritis. Two chapters are devoted to traumatic and other affections of the spine and static deformities of the spine. In these chapters detailed consideration is given to the various questions which must be considered in the diagnosis and management of these cases. Detailed consideration is given hip joint affections of which trauma constitutes an important factor.

A chapter is given to the knee and other joints which relates largely to trauma and traumatic diseases, including operative procedures for reconstruction purposes.

Osteomyelitis, which constitute a sad chapter in bone diseases, is studied in detail with considerable space given to operative treatment, which is of such vital importance. Fractures and their treatment by bone graft which so strongly appeal to Dr. Albee, receives attention in two chapters. Chapter 19 relates to constitutional affections involving diseases of bones, which constitutes much of the deformity witnessed in children.

Infantile paralysis and other forms of paralysis, neuropathies and myopathies, constitute one of the most interesting sections of the book. The deformities from these diseases are of such wide extent, and so important to the state as well as to the individual and the difficulties of treatment so great that we welcome the space given by a master. It may be time that the treatment of these unfortunate patients, should in the main be referred to men of special training and skill, yet the presentation of the subject to the general surgeon is of particular importance.

Running through the book is a constant reference to the methods of treatment introduced by the author and operations which he has employed in the management of his cases.

This is an exceedingly helpful book and should appeal to the general surgeon who must of necessity have much to do with the class of patients treated of.

SEXUAL IMPOTENCE

By Victor G. Vecki, M.D., San Francisco, California, Sixth Edition, 12mo., 424 Pages. W. B. Saunders Company, 1920. Cloth \$3.00 Net.

The first edition of Dr. Vecki's work was published in 1889 in Germany and attracted considerable attention as being one of the first efforts to rescue an important subject from the hands of quacks.

At that time it was hardly a proper subject for dignified medical writers but the medico-legal relations of impotence demanded a more scientific knowledge of the subject. While sexual matters may not be proper subjects for general conversation the real importance cannot be denied. Medical men are quite familiar with the disastrous effects of quack advertisements and advice and are now equipping themselves with sound information in regard to the treatment of patients who are suffering great anxiety as to their condition. Dr. Vecki has taken up the subject with great candor and has presented to the profession through this book, the results of a long and patient study and inquiry into an exceedingly difficult subject, which is always surrounded with doubt and uncertainty.

After considering the physiology and etiology of the subject he proceeds to the consideration of the different forms of sexual impotence. He describes seven forms based on etiology and predicates a treatment suitable to the facts. Without going into a detailed account of the contents of the book we may without hesitation, recommend this book to the attention of the general practitioner as a means of ac-

quiring a knowledge on a subject on which many anxious patients will consult him about and not turn them away to become the victims of various quacks. He should consider these cases just as legitimate subjects for advise and treatment as any that come to him.

SURGICAL SHOCK AND THE SHOCKLESS OPERATION ANOCI-ASSOCIATION

By George W. Crile, M.D., Professor of Surgery, School of Medicine Western Reserve University, Cleveland, and William E. Lower, M.D., Associate Professor of Genito-Urinary Surgery, School of Medicine, Western Reserve University, Cleveland. Second Edition of "Anoci-Association" Thoroughly Revised and Rewritten, Octavo of 372 Pages with 75 Illustrations. W. B. Saunders & Company, 1920. Cloth \$5.00.

Six years ago Crile and Lower presented to the medical profession under a somewhat different title, but with substantially the same purpose in view, a book setting forth results of many years of study and experimentation on the treatment and the prevention of shock in surgical operations by anoci-association.

The views of Dr. Crile attracted widespread attention and interest and profoundly influenced the practice of many surgeons. Since that time Drs. Crile and Lower have added much to their experience, having a wide field of opportunity. In writing this book some change of plans have been observed, theories of shock have been omitted and most of the chapters have been rewritten. The principles involved have not been changed but presented in different language, which renders the book more attractive. Enlarging the book twenty pages and omitting the theories of shock has given a material increase in space for more detailed consideration of methods of treatment. Dr. Crile on every page presents a more concise and authoritative expression in the methods he has studied so thoroughly. Students of the first edition will find much of interest in the second edition. The surgeon who is not familiar with the views expressed will be placed at a peculiar disadvantage.

PERSONAL BEAUTY AND RACIAL BETTERMENT

By Knight Dunlap, Professor of Experimental Psychology in the Johns Hopkins University. C. V. Mosby Company, St. Louis, 1920. Price \$1.00.

This little book, as its title indicates, is an exposition of personal beauty and racial betterment.

Part first relates to accepted standards of beauty of the females of civilized peoples and the attractiveness in their relations to meeting of men and women, not always beauty of form and features, but of health, and vigor, both physical and mental. All considerations of this kind, as to attractiveness, must

bear relation to taste as to size and bearing, for it must be understood that different social strata form different ideas as to attractiveness.

The author finds the subject very complex and that there are many disturbing elements which interfere with the mating of the most fit and the most attractive, thereby breeding the more ideal specimens of human kind.

On account of the partial failure of ideal selection the author in part second points out some of the improvements that may be brought about either through eugenics or by better selection of mates. It appears that the hinderance to conservation of the better types lies at either extreme of social life; the lower or degenerate types and very rich, who belong to the so-called higher types of society life where beauty can be purchased with the reward of a life of luxury, and where the man only regards his partner as a beautiful possession, children are not desired, the families are small, and like the degenerate families, are short lived and leave the propagation of the race to the more vigorous middle classes. No specific remedy is proposed, the purpose being to attract public thought to the facts that lead to conservation and racial betterment.

THE MEDICAL CLINICS OF NORTH AMERICA

Volume 3, Number 4, the Boston Number, January, 1920. Octavo of 316 Pages, 43 Illustrations. W. B. Saunders Company, 1920, Published Bi-Monthly. Price Per Clinic Year; Paper \$12.00, Cloth \$16.00.

The first paper in this excellent number is by Dr. Henry A. Christian of Peter Bent Brigham Hospital on an unusual syndrome of dyspituitarism illustrated by a rare case of complex errors of metabolism, followed by a clinical study by Dr. E. P. Joslin on diabetes and acidosis. In looking over this number our attention is particularly attracted to a clinic by Dr. James P. O'Hare on vascular hypotension. Two cases are related in an analytic manner as to the distinct paths which cases follow, viz., cerebral hemorrhage and to renal insufficiency. Dr. C. W. McClure presents a series of cases of gout with rather extended remarks. Dr. M. J. Rosenan presents some studies in food poisoning, which are particularly interesting.

In addition to the above is a series of clinics at Massachusetts General Hospital, which occupy about one-half of this number and are particularly interesting.

THE SURGICAL CLINICS OF CHICAGO, FEBRUARY, 1920

Volume Four, Number One, 231 Pages with 83 Illustrations.

In this number of the Clinic appear some of the more familiar names, E. Wyllis, Andrews, L. McArthur, Eisenbreth, Carl Beck, and others. The

(Continued on Adv. P. xviii)



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BOOK REVIEWS

(Continued from Page 296)

number opens with a clinic of five cases by Dr. Arthur D. Bevan, Dr. Kellogg Speed presents a case of prolapse of the rectum with operation. Dr. Gatewood discusses dislocation of the hip with fracture of the acetabulum, with the technic of reduction and post-operative management. Dr. George D. J. Griffin presents a resume on the treatment of empyema. Dr. Lyman Cornell presents an interesting summary of the Kronig Ceasarian section; an outline in the change of sentiment and also including a series of three cases.

THE PRACTITIONER'S MANUAL OF VENEREAL DISEASES—WITH MODERN METHODS OF DIAGNOSIS AND TREATMENT

By A. C. Magian, M.D., Formerly Instructor in Hospital, St. Louis, Paris; Honorable Surgeon, Manchester French Hospital; Hon. Surgeon, Wood Street Clinic for Genito-Urinary Diseases. C. V. Mosby Company, 1919, St. Louis. Price \$3.

This is a book for the general practitioner in which the details of diagnosis and treatment are pointed out. The special merit of this manual is to assist the general practitioner in providing for the care of an important class of patients, who may come under his treatment.

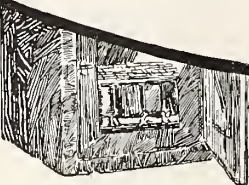
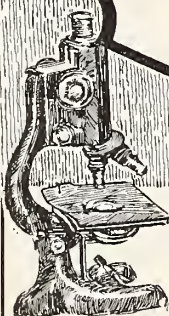
The recognized importance of venereal disease: its bearing on community welfare, its relation to other diseases and particularly to diagnosis places a peculiar responsibility on the general practitioner, which has only recently come into prominence. Probably no other class of diseases has been more negligently treated in the past than gonorrhea and syphilis, partly on account of the indifference of the general practitioner who is in a position to render important aid. Recently, several manuals like the one under consideration have been prepared for the use of the general practitioner who may treat venereal patients on his own account without referring them to specialists, or who may, in conjunction with specialists or health officials, confer great benefit on patients of this class and on the public.

Final Report of the Provost Marshal General to the Secretary of War on the Operations of the Selective Service System to July 15, 1919. Washington, D. C., Government Printing Office, 1920.

This report is very interesting in that it contains a statistical report of all the draft activities by states and by local boards, including registrations, exemptions, accepted, rejected, classifications, exempted by classes, cost of administration by states and local boards, examinations accepted for full service, for limited service, remedial cases by states and by local boards, desertions. In fact there may be found in this report full information in relation to anything that relates to the selective draft.

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The Journal of the Iowa State Medical Society

VOL. X

DES MOINES, IOWA, SEPTEMBER 15, 1920

No. 9

ADDRESS IN SURGERY*

DR. JOSEPH BLOODGOOD, Baltimore, Maryland

I hope that those who are army surgeons returned and those who are not army surgeons will reap the benefit of those of us who were dislocated out of our ruts into a new investigation of our problem in medicine and surgery.

In view of the huge army we had, investigation of such problems was a heavy matter. You must realize, also, that after you get out of that old rut, (I hope you are all out of it) and replaced, you are confronted every day, more so in one community than the other, with difficulties in diagnosis due to the education of our people.

In the beginning, as a rule, the individual notifies the physician when the disease has made the diagnosis. It is a great question in many of those cases where the disease has made the diagnosis whether if they got well we had very much to do with it, although for centuries we got the credit for it.

As I look back a little more than twenty-five years, when I was a student in Pennsylvania in the Children's Hospital, then as a residence surgeon for six years at Johns Hopkins and then in practice, I see that I found no difficulty in going it alone. The cases that came to the surgical clinic when I was associated with Johns Hopkins and which came to me when I started to practice, the diagnosis of which I was to make had the diagnosis already written on the patients. We operated and exaggerated our successes. As I have often told my students, we worked, say one hundred hours in operating on cancer of the breast, and of those one hundred hours twenty hours accomplished something. The other eighty were wasted. But our difficulties today are greater than ever before. The diagnosis of the people is different from ours, and the medical profession must realize—the younger men who come in and the older men who go out—that our difficulties are far greater than ever before and the greatest difficulty is diagnosis.

Brilliant as operative surgery has been—the operation brilliant also—it accomplishes very little if it is not applied at the proper stage.

The thing that impressed me most today in that article on intussusception in children was not the diagnostic problems, was not the operative problems, but was the fact that this surgeon, a relatively young man—I don't know where he comes from—has been able to see intussusception and operate upon it in an earlier period. In my beginning experience, I waited almost eighteen years for an early case. We had plenty of operations before autopsy.

That is an indication that that individual surgeon comes from an educated community. There is something in the community, perhaps it is a doctor, perhaps it is a layman, that brought those children in early.

Take surgery in any community where the per cent of inoperable cancer is large, and in that community the doctors are not doing their duty in educating the public. In any community where there is an unusually large per cent of tuberculosis the local physician is not helping the national organization to educate the public. Typhoid fever in a community is like suppuration of a wound in surgery—in the great majority of cases unnecessary.

The work of the doctor, of the physician and the surgeon and the laboratory man, is growing hard, because the smaller part of our work is the practice of medicine or surgery and the larger part is investigation. It is a mistake to leave investigation to the teaching universities only. There is not an individual in the practice of medicine who cannot investigate, and his investigations, no matter how small they are, will make him a more useful member of the community.

(Slide shown.)—This is an investigation of a very small group of tumors, about 368, but as far as I can make out it is the largest single group that any one individual has ever had an opportunity to investigate. They have been collected ever since 1890 in the laboratories connected with the surgical department of the Johns Hopkins Hospital.

*Read before the Tri-State District Assembly, Rockford, Illinois, September 1, 2, 3, 4, 1919.

That is a benign connective tissue tumor. It can be disseminated by the operator and the patient made worse by an incomplete removal of an innocent tumor. As I told you at the clinic this morning, in the old text-books on surgery there is a statement that the myxoma is a benign tumor but it always recurs, and it recurs because surgeons in operating upon it do just what they do when they skin graft except that they are always successful in skin grafting.

Here is a young man on whom an x-ray was taken of the ankle. The history confused the investigator because it was one of polyarthritis associated with tonsillitis and then with gonorrhea. When he came into the hospital, his polyarthritis had all disappeared except on the ankle and when they took an x-ray they made a diagnosis of osteomyelitis. A good surgeon and a good roentgenologist worked on this.

Here is a shadow not involving all of the bone, and here is a light area. Over this is an area where the cortical and periosteal layers are somewhat irregular and thickened by bone destruction and bone absorption. The simplest terminology in relation to bone is better; use the words bone destruction and bone absorption; use periosteal and central and drop the terms myolemma and medullary. Avoid the words osteoporosis and osteolysis; instead use bone destruction and bone absorption as I said. Osteoporosis and osteolysis have been used in connection with more than one thing.

At the operation in this case, the surgeon started to explore the astragalus. When he opened the cavity of the astragalus, he said he found red granulation tissue and changed his diagnosis from osteomyelitis to giant cell tumor. If he was correct in his diagnosis of a giant cell tumor, he should have corrected it and left the shell of the bone. I have three such cases reported to me by colleagues. Instead of that he removed the astragalus and these are the pieces that were received in the laboratory. Here you see the shells of bones and here the myxomatous tissue.

You can understand that in removing the astragalus through an incision in the soft part piecemeal, this myxomatous tissue must have been brought in contact with the normal tissue and pieces left behind.

(Next slide.)—Here we see the microscopic section which is largely myxoma. The term myxoma would indicate a picture where we have lymphoid cells, and stellate cells scattered in the intercellular substance that takes the strain very lightly. You can understand that when the inter-

cellular substance is scanty and when the intercellular tissue is large in amount that areas will look like myxoma, but it is simply due to the fact that in this area it is young and there is less intercellular substance; histologically it is hard to distinguish between myxoma and sarcoma.

(Next slide.)—Here again you see the myxomatous area and here a very cellular area in which there are a number of giant cells. This was near the periosteum or cortical bone, so as it went through the laboratory one of my good associates diagnosed it giant cell tumor.

(Next slide.)—Here is the higher power of the cellular area, and apparently there is nothing here but the lymphoid and stellate cells of the myxoma, but there is less intercellular substance there than here so we have no evidence that it is a sarcoma.

(Next slide.)—Some months later, the patient came back and the same surgeon explored the ankle and curretted it again. When he came under my observation about a year after the first operation, sent by the surgeon who operated, we took an x-ray. The man was suffering intensely with pain. There were bulgings of what must have been tumor or growth. The x-ray does not show very much except that in the scar where the astragalus was removed there are lighter areas than you would expect if there had been no recurrence of the tumor.

I cut down, however, upon the bulging area. I was certain then that the entire scar had been infected and that a resection would leave a useless foot, so the leg was amputated. Here we see a myxomatous tumor.

(Next slide.)—Here we have a section of the tibia, and throughout the entire scar there is a growth of myxomatous tissue. In some places it has invaded the cancellus bone, breaking through the cortical of the tibia and os calcis.

That patient's recurrence was due to the method of attack. Here is a tumor not very unlike the one that we saw this morning, springing from the upper third of the femur, and this comes from the shaft of the tumor. It differs, however, in not having on its surface any bone shell. The other had on its surface a distinct bone shell. It differs also in the fact that the shadow of the tumor is lighter here than the shadow of the tumor in the case this morning. I am inclined to think that the tumor that we saw this morning is an exostosis. An exostosis is a bone tumor growing from the diaphysis or the epiphysis, composed of a bursa, with a cartilage covering, and the cartilage rests upon bone, the outer part of which is cortical like the normal bone and the inner part of which is cancellus like the normal bone. In

an exostosis the bone from which it grows is normal. There is no change.

If you will notice here, the line of demarkation between the periosteal growth and the shaft is, to a large extent, distinct and sharp. We have here a new growth of the periosteal bone. The production of periosteal bone is no indication whatever of the nature of the lesion irritating the bone. We get new bone formation in certain stages of almost every form of bone disease in which the periosteum is irritated. The suspicious part of this is the absence of bone.

The surgeon in attacking this, thinking it was benign, cut down upon it directly. Then, after seeing what it was, he took it out in pieces.

(Next slide.)—That a shadow similar to the previous exostosis, using the word clinically, may be produced by a tumor that is not a myxoma is shown in this way. When this patient came under my observation, I remembered the previous experience and I decided not to make the mistake that my associate made, so I exposed the tumor and with a chisel I chiseled it off, which, of course, did no harm to the bone. Then when I removed it, I found it was not a myxoma, as I expected to find, but was a perfectly benign one. This patient is perfectly well and has been for eight or ten years, but that is not a triumph for surgery, because she probably would have been perfectly well if I had not operated, but it is a demonstration that is frequently impossible, at least with our present knowledge, to make a positive diagnosis from an x-ray picture as to the nature of the lesion.

(Next slide.)—This is a micrographic picture of a myxoma of the humerus, and it is similar to the one of the astragalus. It meets all the requirements for a benign myxoma. What happened to the man with the tumor of the astragalus happened to the woman with the tumor of the humerus. It recurred in the scar. The first thing done a year afterwards was to take a little tumor the size of a pea out of the scar. That was a pure myxoma. She was operated upon off and on for twelve years and finally the arm was amputated. These two cases of the astragalus and the humerus are myxoma, in which recurrence in one led to amputation (we do not know yet whether the patient in this instance will remain well; I am inclined to think he will) and in the other not amputating soon enough led to death, are more frequent occurrences than you suppose, but many of these cases occurring in isolated clinics are not reported. Others are diagnosed myxosarcoma because they have cel-

lular areas, and that diagnosis, of course, makes the surgeon operate.

(Next slide.)—The bone cyst, which I have so fully described before, is either lined by a little membrane, or, if there is no membrane in the haversian canal, the entire cyst may be filled with a tissue that does not look at all like myxoma.

Under the microscope you see this is an entirely different picture. You see the bone in this cellular granulation. We cannot explain why we can leave this tissue behind, as we always leave some behind in every bone cyst unless we resect or amputate, which we should not do, and the bone heals while if we leave myxomatous tissue behind it recurs and with each recurrence the change to sarcoma is very apt to occur.

In the literature the myxoma is called a benign tumor for which there is rarely a recorded cure, while the giant cell tumor is called a sarcoma for which there has been rarely a failure to cure, showing you how our nomenclature must be interpreted. It would be very much better to call it myxoma-sarcoma if it would influence your attitude toward it and to call the giant cell lesion a benign giant cell tumor in order to hold your hand from resection or amputation.

These facts in regard to the myxoma I have not been able to find in any recent literature. The only suggestion is the statement of the oldest surgeons that myxomas or benign tumors would always recur.

(Next slide.)—A myxoma of the bone is a rare tumor. It is most frequent in the phalanges of the fingers and the metacarpal bones, and these cases represent the larger number of cures, because a diagnosis of a central sarcoma has been made and the bone dissected or the finger amputated.

How can you attack a myxoma, a central myxoma such as this, without amputation? You can destroy that tissue, leaving a bone shell, by cautery, by pure carbolic acid and alcohol, by zinc chlorid. I have had no opportunity personally to operate on any of these cases and most of them have been amputated or resected and completely removed and no recurrence experienced. One surgeon has curretted such a tumor and then swabbed it out with pure carbolic acid and alcohol and then swabbed it out with zinc chlorid and the patient is well.

I have had one case of periosteal myxoma of the metacarpal bone of the hand. It was operated upon and recurred. I hoped to save the hand at the second operation so I used the cautery in the removal of the tumor. It has been four years since that was done and there has

been no recurrence. Therefore, I think if amputation or a mutilating resection in myxoma is indicated, we would be justified in trying that first, but should we explore a bone tumor and find myxomatous tissue—and there is nothing easier to tell—we must at once destroy its vitality by some chemical caustic, by carbolic and alcohol, by zinc chlorid or cautery.

(Next slide.)—I am sorry I cannot give you the results in this case. It was operated on by a surgeon who never saw the tumor but cut it right out. We cannot follow this patient so I do not know whether it recurred or not. The myxoma may be central as you saw in the phalanges; they may occur in the vertebrae and in the ribs: they may be periosteal as you saw in the humerus and the lower end of the femur. They are always accidental findings. You cannot diagnose them by the x-ray, so whenever you cut down upon such a tumor, bear in mind when you have demonstrated the myxoma by the enucleation of the tissue. That is a problem in itself. You will be perfectly surprised at the harm done by the use of the term enucleation of a tumor. It is shelled out beautifully, but the word enucleation and the method of shelling out tumors were methods employed by our ancestors in a period in which it was almost impossible for them to differentiate whether they succeeded or not because so many of their patients died, if they died because of a recurrence of the disease they looked upon the tumor they had shelled out as a malignant tumor, but now the enucleation or shelling out of a tumor is unjustifiable except when it is in a position where further dissection would be mutilating. You know we have shelled the tonsils; we know that we can enucleate some of the thyroid tumors, but you will be perfectly thunderstruck if you go over our group of so-called mixed tumors of the parotid that have been shelled out.

Fortunately, Dr. Halsted did not believe in shelling out and enucleating tumors. In the Johns Hopkins clinics we have no recurrences among our groups of mixed tumors,—not one. We have a few cases of facial nerve paralysis but no recurrences.

Now to test the efficacy of carbolic and alcohol, on three occasions I found that the excision of the recurrent mixed tumor would mean facial nerve paralysis, and I knew that we could run the risk of another recurrence and the danger of disseminating, so the tumor was cut out and then brushed off from the nerve with an alcohol sponge while the wound was filled with alcohol and then carbolic in which alcohol was employed. There has been no recurrence. One case had run

five years and she had had two operations by enucleation.

I think I have the evidence, then, that when we must for purposes of diagnosis explore, or when we must for purposes of limiting our mutilation give certain tumors narrow limits, such as myxoma of bone, mixed tumor of the parotid and the fibula, we can use this carbolic and alcohol to kill the bit of tissue that may be left behind. This is a very important piece of technique which has been misinterpreted by a friend of mine who said he did not see why I employed pure carbolic and alcohol because no one had demonstrated that there was any bacteria. The exostosis is a frequent type or a common type. Here we have one osteoma; it is an ossifying myositis. I will not go into details. The term exostosis can be employed to cover osteoma and all benign growths from the bone, chiefly bone. You will notice that the enchondroma is a relatively rare bone tumor, and we see sarcoma containing cartilage in periosteal and central tumor. The danger of disseminating cartilage in a cartilage tumor by enucleation is far less than in a myxoma. You will notice that the myxoma is a relatively infrequent tumor. The giant cell tumor is rarely periosteal, and is one of the most common central tumors. This is the tumor that the older surgeons cured by amputation and which we today cure by curettage.

This term osteosarcoma unfortunately is a term that some employ to mean a bone tumor or a tumor containing bone. That is an ossifying periosteal sarcoma, and it only differs from any other form of periosteal sarcoma by the presence of the bone. Periosteal ossifying sarcoma with enough bone to justify that term are very rare.

The very malignant tumor (by that I mean the cellular sarcoma, and there is nothing more confusing than the reading of the classifications of sarcoma), is a well recognized one. When I see sarcoma and fibrous tissue, I call it a fibrosarcoma. When I see a sarcoma with a great deal of bone, I call it an ossifying sarcoma because the word osteo is used in so many different cases.

Here is a very interesting point. In the older text-books, the central sarcoma were greater in number because the longer a patient waits for the operation or autopsy at which you get the specimen, the larger the tumor grows, the greater its involvement of the marrow cavity and the more frequently you think it is medullary, but I am inclined to believe that in five years these thirty cases of central tumors will increase by one and these fifty-seven cases of periosteal will increase by ten or fifteen. The majority of the malignant bone tumors begin as periosteal growths while the

majority of the central tumors are giant cell. Now, of these thirty cases of the malignant central sarcoma, ten of them were the malignant type of bone cysts.

The tumor I am studying now is the malignant periosteal sarcoma of which we have fifty-seven cases and one cured. How can we increase the number of cures in this group? Only by looking upon a bone lesion as an acute disease; only by educating the public to the fact that a local pain in a bone or joint with or without a history of an injury does not mean some medicine from the corner drug store or does not mean some treatment for rheumatism or some adhesive straps or plaster to relieve pain. It mean an x-ray, and only by the early application of the x-ray after the slightest limp, the least pain, in the region of a bone or joint will these cases be gotten early. I am inclined to think that in the cure of the malignant periosteal sarcoma we will have to act as in appendicitis where we cannot even wait a week.

If I had more time I would show you pictures of these cases, but I think I have given you enough to think about and this will come afterwards in the literature.

The problem of diagnosis in the central tumor is to differentiate the giant cell tumor from the malignant tumor and the bone cyst, which I think I have brought out pretty well.

The diagnosis of the periosteal sarcoma is not settled. The last three cases that came under my observation were sent to me by our very best roentgenologist and were diagnosed osteomyelitis until explored and found to be periosteal sarcoma.

This is a picture of a periosteal sarcoma producing a little bone formation and a little bone destruction cells getting into the haversian canals and producing some destruction very like osteomyelitis.

Five or six years ago when the surgeons met in Baltimore I had one x-ray which I passed around to these fifty or seventy men. They all diagnosed it syphilis or osteomyelitis. Then I took them into the laboratory and showed them the specimen and I think they all left better and wiser men. You should not expect your roentgenologist to make an absolutely correct diagnosis from an x-ray. If you insist upon it and if he is foolish enough to be willing to try it, he is going to make mistakes.

THE TREATMENT OF UTERINE TUMORS*

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The frequency of the occurrence of uterine myomas renders the treatment of this condition an important and interesting subject. Our statistics show that 30 per cent of colored women and 12 per cent of white women more than thirty-five have fibroids. Not all fibroids however necessitate interference. A small subperitoneal tumor may exist for years without increasing in size, or giving rise to symptoms necessitating treatment. If, however, a tumor by its size causes pressure symptoms, or produces menorrhagia or metrorrhagia, interference becomes necessary. Undoubtedly many myomas come in the class of small symptomless tumors which decrease in size after the menopause without giving rise to symptoms.

The method of treatment of uterine myomas depends largely on the age of the patient, the symptoms produced, and the size of the tumor; it should be that method whereby the bleeding is controlled, the tumor removed, or its growth checked, and the function of the organ impaired as little as possible. This is especially true in the young woman during the child-bearing period, when it is particularly desirable to retain the function of menstruation and pregnancy. Myomectomy meets these requirements and its possibilities should be considered in all cases of uterine myomas causing symptoms in women aged thirty-five, or less. An argument advanced against myomectomy is that the mortality is higher than that in abdominal hysterectomy. In a series of 619 cases of abdominal myomectomies done at the Mayo Clinic the mortality was 0.5 per cent.

The fact that other tumors may develop or that there may be tumors too small to detect at the time of the myomectomy which will later necessitate an operation, have been points against myomectomy. In our series of 619 cases we have reports regarding 373, and in twenty-one of this number subsequent hysterectomy was done; in two it was done immediately after the myomectomy because the microscopist diagnosed malignancy. In the other nineteen cases the symptoms were relieved for from two to thirteen years except in one in which pelvic pain was the only symptom and was not relieved, and a hysterectomy was done six months after the myomectomy.

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One patient had a child one year after the myomectomy and a hysterectomy one and one-half years after the birth of the child. One was six months pregnant at the time of hysterectomy. The menorrhagia and metrorrhagia had been controlled by the myomectomy in 48.3 per cent of the 373 patients heard from.

A fibroid tumor may be the cause of sterility. Young says that myomas produce sterility in 31 per cent of women, while the normal sterility is probably about 10 per cent. In our series the presence of the myoma was evidently an etiologic factor, since twenty-three of the 482 married women who had not been pregnant previously became pregnant after operation, and four of the fifteen who were pregnant at the time they replied to the questionnaire had not been pregnant before the operation. In the entire series forty-four women became pregnant after the operation. Fifteen of these were definitely pregnant at the time of writing; two patients were questionably pregnant. Two of the women have married since the operation; one has had one child and one has had two children. Cesarean section was done in one case in which pregnancy occurred after operation, and in one in which there was a three months' pregnancy at the time of myomectomy. A living child was delivered in both instances with recovery of the mother; no other complications at the time of labor were reported. Six miscarriages were reported. Most young women, if given the choice between myomectomy and hysterectomy with a full understanding of the situation, choose the former operation and assume the responsibility of a later hysterectomy.

In a patient under thirty-five who has a palpable tumor and a history of menorrhagia, the application of sufficient radium to cause the tumor to disappear produces a cessation of menstruation, temporarily if not permanently, and in most instances, renders the patient sterile. 'In 438 of our series of 600 patients treated by radium pregnancies resulted as follows: Three normal full-term babies, two normally developed full-term dead fetuses, and one premature dead fetus. One patient was in her sixth month of pregnancy, one was questionably pregnant at time of writing, and one miscarried twice at three months. I was able to find only one full-term pregnancy following radium treatment reported in the literature.

Abdominal hysterotomy may be indicated in the young women in whom there is no palpable tumor and no systemic cause for the persistent bleeding, and in whom curettement and medical treatment have not relieved the menorrhagia. An exploration of the uterine cavity through an ab-

dominal incision may reveal a small submucous fibroid or a polyp located high, or near one horn, which would necessarily be missed by the curette, and the removal of this control the bleeding.

For the patient of thirty-five years or more, with a small myoma or a fibrous uterus and menorrhagia, the application of radium is the treatment of choice. We have thus far confined the use of radium to those cases in which the tumor is not larger than a three and one-half to four months' pregnancy, and in which there are no symptoms of malignancy. We believe that all larger tumors are best treated by surgery, unless there is a definite contraindication to operation. In the larger tumors there is an uncertainty as to the degenerative changes which may occur after menstruation has ceased, so that the patient is safer without the tumor. Frequently a chronic salpingitis is associated with the larger tumors, and too, there is always the possibility of having mistaken an ovarian tumor for a fibroid in those cases in which the tumor fills the pelvis.

Of a series of 600 patients with menorrhagia with or without myoma, treated with radium at the Mayo Clinic from July, 1915 to January 1, 1920, 438 have been heard from. Eighty-nine of these are under thirty-five years of age. In treating these patients we attempted to give enough radium to control the profuse flow, but not to stop it permanently, and it is difficult in this type of case accurately to estimate the amount. From 250 to 350 mg. hours are usually given as the initial dose, depending on the size of the tumor and the age of the patient. It is better to give too small a dose and repeat the treatment in from three to four months than to give a large dose at the first treatment and stop menstruation. Menorrhagia was controlled in 55.6 per cent of the patients; subsequent hysterectomy was done for four patients under thirty-five, one six months, one eight months, and two each one year after the radium treatment.

In the group of patients more than thirty-five, a larger dose, from 500 to 700 mg. hours of the radium element or emanation, depending on the size of the tumor, is used. Usually this amount is sufficient to cause a permanent cessation of menstruation and diminution in the size of the tumor. If within four months the menstruation has not ceased or the tumor has not decreased in size the treatment is repeated, and in cases in which the tumor is large a treatment may be necessary to decrease its size even after menstruation has ceased. In our series menstruation ceased in 202 women more than thirty-five; 185 (91.5 per cent) of these were more than forty.

If there is a foul leukorrhea, or intermenstrual bleeding suggestive of carcinoma of the fundus, or if the tumor has rapidly increased in size hysterectomy is indicated. A negative diagnostic curettement in a suspicious case of carcinoma is not to be relied on, since the curette may have missed the involved area.

A recent history of pelvic inflammation or physical signs of infection are contraindications to the application of radium. Neither should radium be used in patients complaining of chronic pelvic pain even though examination reveals no evidence of inflammation. In such cases there is danger of lighting up a quiescent pelvic infection. We have had three such cases in which operation became necessary.

X-ray treatment may be given in the cases of large tumors with the desired effect, although it usually means treatments repeated over a longer period. We have treated very few cases of menorrhagia and fibroids with x-ray since we consider radium more efficient. Pfahler and others, however, report excellent results following x-ray treatment.

CONCLUSIONS

1. Abdominal myomectomy should be considered in the treatment of uterine myoma causing symptoms in the woman of thirty-five years or under.

2. Radium is indicated in the cases of small uterine myoma causing hemorrhage in patients more than thirty-five, in the fibrous uterus, and in the menorrhagia of menopause.

3. The dose of radium should be sufficient to control the menorrhagia but not enough permanently to stop it in the patient under thirty-five.

4. The large tumors are best treated surgically.

5. A negative diagnostic curettage is not to be relied on in a case in which the history is suspicious of malignancy.

INCREASE OF MEDICAL FEES IN CHICAGO

A new scale of fees amounting to fifty per cent increase was adopted at a recent meeting of the council meeting of the council of the Chicago Medical Society. Some of the new fees adopted are as follows: House visits, former maximum \$5, now \$15; night visits, formerly \$3 to \$10, now \$10 to \$50; operations involving fractured ribs, formerly \$25 to \$50, now \$50 to \$500; toe amputations, formerly \$15 to \$50, now \$50 to \$200; major operation will range from \$200 to \$10,000. The scale will be flexible and will be governed by the patient's ability to pay.

VESTIBULAR MANIFESTATIONS IN NEUROLOGICAL CASES*

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In undertaking the consideration of this subject it may be of interest first to reflect a little on the development of our knowledge of the ear, its functions, etc.

Until recently the great majority of those interested in the study of medicine thought of the ear only as an organ of hearing. There were those, however, notably the scientists Flourens and Purkinje, who in 1825 noted the connection of the labyrinth with nystagmus and vertigo. It was Meniere who clearly recognized the relationship of vertigo to diseased ears. Many others, during the latter third of the past century, busied themselves with a study of this subject but it was Hogyes, a Hungarian, who made the first systematized contribution to the study of the internal ear.

Robert Barany, an otologist in Vienna, while douching suppurating ears with water too hot or too cold in 1905 noticed that nystagmus and vertigo resulted and also noted the definite type and direction of the nystagmus. He repeated these tests on normal ears and observed the same phenomena; these observations were the basis for the caloric tests published by Barany.

The importance of this contribution is indicated by the fact that the Society of German Neurologists in 1913 accorded for the first time to an otologist, the prize of the year.

The world wide recognition of this work was indicated by the award of the Nobel prize two years later to Barany. The Vienna school has been first in the development of this subject but it is with no little pride that the study of the internal ear has been enriched by two Iowa men, Dr. Shambaugh, whom we all know, now of Chicago, and Dr. Lewis of Dubuque, a member of our section.

The neurologist is interested in the development of our knowledge in any organ, the connection of which with the brain gives us information regarding new pathways and associated cerebral connection. The eye, with its intracranial connections, has for years assisted the internist in his consideration of brain lesions. The new knowledge regarding the internal ear is of equal assistance.

(Here we have an organ with its connections influenced by intracranial changes, renal, vas-

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cular, and metabolic disturbances, with varied evidence of intoxication. The internist of today should turn to the otologist for the analysis of the cause of vertigo.)

In considering the ear we think of the cochlea, which is the end organ of hearing; second, the kinetic-static labyrinth, which is the equilibrium organ, this latter being made up of the utricle, saccule and semi-circular canals.

Stimulation of the vestibular apparatus by turning, water, or galvanic tests give normal results. When, however, the results secured are not according to rule, something is wrong and further analysis, through tests, is indicated.

It has been said that only two minutes of time was consumed by some expert examiners in the selection of aviators. Little time was required to prove that the internal ear was normal and that was the only purpose of the examination of the applicant for aviation.

The individual receives three sources of information that enables him to maintain his equilibrium. These are the kinetic-static, sight and muscle senses. The muscle, joint and splanchnic connections make up the sixth sense; the kinetic-static sense is the seventh special sense. A special sense organ must have an end organ with the connecting fibers leading to the intra-cranial centers. The sole function of the kinetic-static organ is to maintain balance. When one of these three aids—sight, muscle sense, or kinetic-static sense—is lost, the remaining two compensate; the perversion of one of these senses may be more annoying than its destruction.

The study of neuro-otology results in the classification of vertigo as an ear condition. It is always a direct attack on the apparatus capable of producing vertigo—either the vestibular apparatus or its intracranial distribution.

The proper functioning of the internal ear prevents us from becoming dizzy and keeps the cerebrum informed. Interference with any portion of this system provokes vertigo; this may result from:

1. A lesion within the ear.
2. A lesion along the intracranial pathways.
3. Involvement of the ear mechanism by eye disturbances either through the eye muscle nuclei or association fibers from the cuneus to the cortical terminus of the fibers from the ear in the posterior portion of the first temporal convolution.
4. By involvement of the ear mechanism through cardiovascular disturbance.
5. By involvement of the ear mechanism by toxemias from any organ or part of the body.

The eighth cranial nerve is much less resistant to injury, either mechanical or chemical, than the seventh nerve with the course of which it is so intimate. Intracranial pressure many times lowers, or either obliterates the function of the eighth nerve, while the function of the seventh nerve lying along side of it, is scarcely impaired. As an example of its susceptibility to toxins we may take as an example that of syphilis. It is possible to test the promptness of the vestibular apparatus by definite dosage and note the duration of time of the reaction; this test repeated at intervals of a few days will tell us whether the intensity of the toxic effect is increasing or decreasing. These results, combined with the Wassermann of the blood and spinal fluid, give us accurate information as to the regulation of the dosage in the treatment of the disease.

Nystagmus and vertigo with loss of equilibrium, associated with nausea and vomiting, may result from internal ear or intracranial lesion. It occasionally happens that the neurologic study of the case indicates a lesion of the cerebellum; data, however, from the ear examination in the same case may prove the lesion to be labyrinthine.

A peripheral lesion of the labyrinth or eighth nerve is suggested by the following as pointed out by Jones, from whose work practically all of my data is secured.

1. Impairment of the function of both the cochlea and the kinetic-static labyrinth.
2. History of presence of tinnitus; this however is not absolute.
3. The proportionate impairment of responses to tests in both the horizontal and vertical canals.
4. Proportionate impairment of both nystagmus and vertigo, either of the horizontal or vertical canals or both, suggests a lesion in the canals or in the nerve.

The central lesion is suggested by:

1. Normal cochlea but impaired or non-responsive canals.
2. Non-responsive horizontal but absent or impaired vertical canals.
3. Normal responses from the vertical canals but impaired or absent horizontal responses.
4. Normal vertigo but impaired nystagmus from the horizontal.
5. Normal nystagmus but impaired vertigo from the horizontal.
6. Normal vertigo but impaired nystagmus from the vertical canals.
7. Normal nystagmus but impaired vertigo from the vertical canals.
8. Normal vertigo and normal nystagmus from any semi-circular canal but impaired past

pointing in any direction of any one extremity.

9. Normal vertigo and normal nystagmus from any semi-circular canal but impaired or absent normal falling.

10. Spontaneous vertical nystagmus is pathognomonic of a central lesion and indicative of involvement of the brain stem from either infiltration or pressure; this is the only type of nystagmus which a labyrinthine lesion may not produce a spontaneous vertical nystagmus either up or down.

11. If there exists a spontaneous nystagmus to the right and non-responsive semi-circular canals of the right ear, an intracranial lesion is suspected; the nonresponsive labyrinth itself, if responsible, would produce nystagmus to the left.

12. Spontaneous nystagmus increasing in intensity and of long duration suggests a central lesion. A peripheral lesion, provoking spontaneous nystagmus, is most intense at first and gradually disappears within a few days.

13. If stimulation of any semi-circular canal produces a perverted or inverse nystagmus it is pathognomonic of a central lesion and indicates brain stem involvement.

Such phenomena as the following are common:

Douching the right ear with cold water, the head back, stimulating the right horizontal canal should produce a horizontal nystagmus to the left; if such a stimulation causes vertical nystagmus up or down, rotary, oblique or mixed nystagmus, it may be spoken of as perverted. If, instead of horizontal nystagmus to the left, it produces pure horizontal nystagmus to the right, it may be termed inverse nystagmus. Neither a perverted nor inverse nystagmus can be caused by a peripheral lesion of the labyrinth or eighth nerve.

A peripheral lesion produces a poor or no nystagmus.

Absolutely false response indicates a central lesion.

If the ear stimulation produces conjugate deviation of the eyes instead of nystagmus it is pathognomonic of a central lesion.

The pathways from the horizontal semi-circular canals are different after entering the brain stem from those of the vertical canals; further, the tract of each canal divides into two separate pathways, one, the vestibular ocular tract which is responsible for the ocular movements—the other, the vestibulo-cerebello-cerebral tract, conveys impulses from the ear to the cerebral cortex, producing vertigo.

If a horizontal canal produces neither nystagmus nor vertigo, it indicates a lesion at some

point along the pathway before the division into the two tracts. If the horizontal canal produces normal vertigo but no nystagmus, the lesion is along the vestibulo-ocular tract at a point beyond the division into the two tracts. If the stimulation of the horizontal canal produces normal nystagmus but no vertigo, it indicates a lesion at a point along the vestibulo-cerebello-cerebral path beyond the point of division. What has just been said of the lesion along the pathways of the horizontal canals applies also to a lesion along the vertical canal pathways.

Ear tests assist in locating lesions in the cerebello-pontine, medulla oblongata, pons cerebellar peduncles, cerebellum and various portions of the cerebrum including the parietal, temporal and occipital lobes.

If, after turning and douching, there appears a normal past pointing of both extremities in both directions, it may be assumed that the cerebellum itself is intact; while this is not absolute, it is the best method of determining the integrity of the cerebellum.

In growths in the cerebello-pontine angle, ear tests usually demonstrate the two following phenomena:

1. An absence of all responses from the vertical canals of the ear opposite the side of the lesion. For example—

Tumor in the right cerebello-pontine angle, the tests are as follows:

(a) The right ear gives no responses. The cochlea is irresponsive and the horizontal and vertical canals fail to produce nystagmus, vertigo, past pointing or falling.

(b) The left ear shows normal hearing; stimulation of the left horizontal canal produces nystagmus, past pointing and falling.

(c) Stimulation of the left vertical canal fails to produce any responses because the vertical canal fibers are impaired by tumor pressure on the pons.

2. Crossed past pointing. This consists of persistent past pointing of both upper extremities, either outer or inward, regardless of the type of ear stimulation.

When ear stimulation produces the expected normal results—nystagmus, vertigo, past pointing and falling—the Barany tests are of unquestioned value in eliminating lesions in the posterior fossa and brain stem.

Continuous stimulæ from the ears control the ocular mechanism and precision of movement. Normally functioning ears determine the steadiness of fixation of the vision; this is best demonstrated by the fact that the sudden loss of the

function of the right internal ear always results in deviation of the eyes to the right because the left drawing influence is impaired so that the nystagmus is to the left.

The anode of a galvanic current applied to the right ear depresses its function and results in the drawing of both eyes to the right with a resulting nystagmus to the left. Switching to the stimulation by the kathode to the right ear, the reaction is reversed.

The fistula test as formed by means of the Politzer bag is well known as it produces the violent dancing of the eyes.

When there is a disturbance of the conjugate deviation of the eyes in any direction, the ear test should be made. If there is loss of voluntary control of the eyes, the individual when asked being unable to direct the eyes in a certain way—if the proper ear stimulus in one of these cases causes the eyes to move in this direction, showing the reaction normal, it shows that the pathway through the eye muscle nuclei and through the nerves of the eye muscles themselves to be intact—therefore the lesion is supra-nuclear.

Slow movement of the eyes in one direction, with a swift recoil in the opposite direction, is the vestibular type of nystagmus and is due to a disturbance of the ocular nerve mechanism and not in the eyes themselves; it may result from a lesion affecting any of the pathways between the ear and eye nuclei; a lesion being located either within the ear or the cranium.

A slow component of nystagmus is caused by irritation, impairment or destruction of the pathways from the ear to the eye nuclei. The quick component represents the attempt of the cerebrum to correct the altered position of the eyes.

The entire physiology of the ear tests may be summed up in four sentences:

1. The eyes are always drawn in the direction of the endo-lymph movement.
2. Vertigo is always in a direction opposite to endo-lymph movement.
3. Past pointing is always in a direction opposite to the vertigo.
4. Falling is always in a direction opposite the vertigo.

In running through the hearing tests, when we find the hearing is practically normal but the bone condition is greatly reduced, we are accustomed to think of a probable syphilitic infection; vestibular tests in a case of this kind aid greatly in the diagnosis. When the nystagmus response to test is subnormal, it is a hint to further study.

Vertigo, from whatever cause, belongs to otology. Neuro-otologic studies are of value to the

otologist in the following ways:

1. Routine study of ear cases.
2. In determining the cause of vertigo, no matter what its origin.
3. In intracranial localization.

Physiologically, the internal ear may be divided into three portions:

First—The acoustic, or hearing portion.

Second—The static, for the maintenance of station.

Third—The kinetic labyrinth for recognition and analysis of motion.

The acoustic is limited to the cochlea, the static to the saccule and utricle, the kinetic to the three semi-circular canals (saccule and utricle may probably also have a part in this). It would be interesting, if time would permit, to follow the fibers from the horizontal canals through the inferior cerebellar peduncle and the fibers from the vertical canals through the middle cerebellar peduncles to the eye muscle nuclei and their various connections on to the temporal and cerebral centers. These connections are all beautifully arranged systematically in Jones' work; some of the connections have been worked out histologically, while a great deal of it depends upon clinical observations.

The cerebellum which occupies such a prominent position in neurotology has a synergic action which consists in collecting and co-ordinating motor impulses sent to it by the cerebrum; when this function is impaired hypermetria, adiakokinesis or tremor result.

Discussion

Dr. E. R. Lewis, Dubuque—The war has done more for otology in two years than possibly might have been done in four or five decades, in that it has stimulated interest in the practical application of the more or less bewildering theoretical studies of the vestibular apparatus. It has also made it necessary and mandatory upon those who were laden with the military responsibilities of applying this to eliminate non-essentials and to get down to the utmost simplicity at the earliest possible moment, a process deserving the gratitude of those who have this matter most at heart. Getting down to words of one syllable, we are simply dealing with a special sense, whose sole duty is to sense motion. We know that man—an ambulatory being—must acquire ability to utilize motion, and nature does not require of any created being an ability to utilize anything that she did not endow him with a special sense to perceive. We also perceive motion in other ways, but the one special sense that nature has given us, whose sole function is the perception of motion, is situated in the internal ear. We cannot smell motion, we cannot taste it, we cannot hear it; but the special senses of surface tac-

tile—feeling, vision, deep sensibility and the vestibular sense—those four all bring us something of information concerning motion. It is a by-product, an incidental, with respect to the tactile sense, deep sensibility and vision, but it is the sole function of the vestibular apparatus to sense motion. That statement in itself is a simplification. We have in the past held rather vague, uncrystallized views on this subject. Dr. Shambaugh, for instance, had long adhered to the statement that “the chief function of the vestibular apparatus was to emit tonus impulses to the skeletal muscles.” That is more or less confusing. It does do that, incidentally, in common with all sensory apparatus. Disregard the incidentals, in the interest of clarity and simplicity, and remember that the special function of this special sense has is to sense motion. The special sensing motion is in itself a very important thing, and is going to become more and more important in this age of ever more rapidly increasing motion. I think there is no question that aviation has taken a place of practical and certainly growing prominence in civil life. Motion is going to assume an importance that it never before has assumed—that is, motion of that intensity; and there is no question about the fact that commercial aviation will not be established upon a haphazard basis. There are going to be certain definite, standard safeguards thrown about the pilot, the passenger and the property, at risk in aviation; and without positive demonstration of at least a normal complement of motion-sense a man will not be permitted by law to pilot an airplane. Therefore we are all going to be called upon to know something specific and practical about testing the pilot; this will come to be a big field for thought and work for otologists during the next 20 or 30 years. The matter of differential diagnosis that is opened up in vestibular tests is extremely important. I believe that otology has in this a prospect of assuming a usefulness to the general diagnostician, to the internist, the neurologist, the surgeon—especially the cranial surgeon—that is second to none. I think that ophthalmology will have to take the second place rather than the first place among the specialties when it comes to the importance of its contributions to intracranial differential diagnosis. It behooves us as otologists to advance ourselves as rapidly and yet as surely as possible. The study of the accumulated data of the last two years alone in this field is going to require, I think, the most of a decade in order to get a thorough digestion of what has been encountered. For instance, Dr. Pearson spoke about the desirability of making some special study concerning the effects of syphilitic infections on the eighth nerve. That is in itself a commentary upon Dr. Pearson’s quick, incisive grasp of the salient features of this subject. That has already been done in a rather intensive military way. The study was started in Philadelphia by the late Alexander Uhle and some otologic associates in the year 1914-1915. The untimely death of Dr. Uhle cut it short, and before it was resumed in anything like the proportions that had been pro-

jected, the war came on, and it was not resumed until eight months ago, when arrangements were made for the examination of every syphilitic coming to three of the largest New York clinics, and those were continued by well matured expert examiners until early in this year. There is now being mulled over and codified this large bulk of definite information concerning eighth nerve findings in syphilis. I happen to have been in charge of that work, and I recall some things very distinctly. Among other things I happened to see the examination of an individual who had had a previously recorded similar examination two and a half months before. This examination was made eight days after the occurrence of an initial syphilitic sore, and at that time there was a very marked affection of the eighth nerve. That was very surprising and is certainly quite unusual in the light of experience with many other syphilitics. There was nothing else in the history to which could be attributed the change in responses to vestibular tests. We have had some interesting things in our air service. We have had several cases where an otologic diagnosis was made by a layman who knew nothing about otology, an aeroplane being his diagnostic instrument. We had men who had finished training and had acquired high proficiency in air maneuvers, who under the eye of the officer in charge of flying deteriorated so rapidly in flying ability as to decide the officer in charge of their flying to “put them off flying.” Each case came up with some such remark as this: “I don’t know what is the matter with Smith; he used to be able to do well in the air, but the last six or eight weeks he has been getting progressively worse and worse, and as far as I am concerned I am not going to let him fly until we find out what is the matter.” In several instances examination revealed marked change in vestibular reactions, as compared with the previously normal reactions of these pilots. Comparison with their official examination on entering the service established beyond question that the deterioration had taken place in the service, and in several cases, at least, we were able to get a direct history and positive proof of syphilitic infection subsequent to their entering the service. In certain other cases we were able to find that they had had metastatic involvement of the eighth nerve incidental to mumps. Several infections seem to have a certain predilection for the eighth nerve. So, in that way, it is true that the diagnosis of eighth nerve disease has been made by a man who would not know anything of otology and his instrument of diagnosis has been the aeroplane.

AWARD OF BRITISH HONOR TO MAJOR GENERAL WILLIAM C. GORGAS

A knight commandership of the Order of St. Michael and St. George was conferred by King George on Major General William C. Gorgas, former surgeon general of the United States Army.

DISEASED TONSILS*

ROBERT M. LAPSLEY, M.D., F.A.C.S.

Mr. Chairman and Members of Iowa State Medical Society:

At the 1910 meeting I presented to this section a paper on the subject of tonsils, soon after their great additional importance as causes of general or secondary diseased conditions, was recognized.

I quoted from various authorities, and rather felt their importance was being exaggerated, as most of the conditions had not yet come under my observation.

I recall also, that when we had a medical college in Keokuk, I used to regard the tonsils as relatively unimportant, and the main causes for removal were recurrent tonsillitis, and obstruction.

These are still important causes, but there have been many others added to them. I have made no great discoveries that I am going to present, and, in a way, this is a hackneyed subject, but the tonsils have assumed a position of such importance, as to merit frequent attention. We have probably not yet quit finding out things about the tonsils. It is not always easy to find out even if tonsils are diseased. Some of them are very apparently so, and in some the history makes the case clear, while in others neither the history nor their appearance is conclusive, and it is necessary, if the tonsils are under strong suspicion, to advise the patient of the uncertainty about relief following an operation.

The diseased tonsil is one of the most important things to deal with in the human economy, but the laity are very well educated now to expect trouble from tonsils; in fact, it seems now that almost all otherwise misunderstood diseases are attached to the teeth or the tonsils. It is not unlike the condition of headache being attributed to the eyes if no other cause is apparent, and even the headache cases are being divided with the teeth and tonsils, as it is not uncommon to relieve them by the removal of a local infection.

I think the laity even expect too much from the removal of tonsils now, and I think we should use much care in the examination of the tonsils, and in the advice we give patients, so as not to discredit, more than necessary, an operation offering so many good results.

Even then an occasional case will fail to get what they expect, and forget, if you have told them, that results are to be uncertain, in their

cases, and make a good deal of misunderstanding among their acquaintances.

We are all familiar with the plain cases of diseased tonsils such as the ones that have a ragged appearance, with cheesy deposits in them, and we can generally find the small diseased submerged ones that do not show in looking in the mouth with only a tongue depressor, which used to be overlooked, and are often the cause of great trouble, on account of poorer drainage, because they are covered over. Then we find what may look like healthy tonsils, and the patient will give a history of attacks of tonsillitis, which we would not suspect from the appearance.

We also find tonsils that apparently are healthy, and have no history, but the general symptoms are apparently due to no other known cause, and on removal of tonsils, we find, at any rate, a partial relief.

What may we expect to occur from diseased tonsils, and what may we hope to relieve, or should I say, what diseases may we not expect to come from diseased tonsils?

In the paper referred to, a few years ago, I went over a long list of quotations of diseases traceable to the tonsils given by various good authorities, and by this time, we have probably pretty much all verified the list.

We have always expected to relieve a patient of recurrent tonsillitis if the tonsils were removed. Then when we consider what diseases come from tonsillitis, we find an unnumbered, and uncertain group. Conditions like rheumatism, chorea, heart lesions, iritis, which follow after sore throats, may naturally be attributed to the infection through the throat.

We often find, however, the cases do not appear that plain. Perhaps the patient, has rheumatism, chorea, heart lesions, iritis, bronchitis, diseased lymphatic glands, or one of the various other frequent results from tonsil infections, and yet no tonsillitis. Perhaps clearly chronic diseased tonsils are found, and you feel sure enough to advise the patient the tonsil is the probable cause, but you may find one of the uncertain kinds, and then after the other causes are sought for, give them guarded advice as to the tonsils as a cause.

There are quite a group of patients who have no particular disease, but who are lacking in energy, and have indefinite pains, that get great improvement from removing the tonsils.

Not infrequently, in removing tonsils for other causes, I have patients state they have been relieved of a troublesome headache, that I had

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failed to get in the history. Neuritis has as one cause, diseased tonsils.

I quoted a number of authorities in regard to the relation of tuberculosis to diseased tonsils, in the previous paper, but will say that my own mind is not very clear yet as to the relation of diseased tonsils to tuberculosis. There is this much indication for their removal, that the general beneficial result to the health from removing an absorbing poison to the system, will result in better nutrition, and that is the principal indication in tubercular troubles.

The diseases I have referred to as resulting from diseased tonsils are what might be called ordinary ones, and I have only intended to mention those that have come under my observation in recent years.

There are no doubt, many other conditions due to such local infections as are found in the tonsils, and we may expect many satisfactory results, if the cases are carefully related, and the patients instructed what to expect as results, and I do not mean, by this, that every tonsil that is somewhat enlarged needs removal, but only those which have some logical reason to be removed.

TONSILS CASES I HAVE MET*

CHAS. P. FRANTZ, F.A.C.S., Burlington

Every operator of reasonable experience is abundantly able to recount successes in his particular field. There is profit in this rehearsing usually, and always there is interest at least.

I choose in this paper to enumerate a few cases out of the ordinary so that we may from the discussion mutually profit thereby. To my mind there is too much time wasted in discussion as to the best method, instruments and technique employed in the modern tonsillectomy. We owe it to our fellow colleagues to outline our method, which naturally cannot differ greatly from that of other operators who seek to obtain the same results in whatever field they labor. The end result is the all important viewpoint; whether it be accomplished by bistury, scissors, tonsilotome (which I personally consider obsolete), the guillotine, the snare or otherwise.

My own deduction after a reasonable experience with each of these methods is that for all around service in every variety of tonsil the snare is the ideal, if one were to adhere strictly to any

one method. I merely give my personal view, based on my own experience and as indicated will not waste time arguing points and technique with which all operators are familiar. Likewise the rehearsal of my technique will be as brief.

Without general anesthetic it is as follows: Thoroughly cleansing tonsil; a few swabbings of the gland with a 5 per cent cocaine solution after drying tonsil membrane so that the solution will not easily trickle into throat; injection of a dram to one and one-half drams of a one-tenth of one per cent cocaine solution with two drops of adrenalin to the dram; grasping of tonsil with suitable forceps; pulling it well forward so as to outline pillar; desecting anterior pillar free; drawing it then toward opposite tonsil and desecting posterior pillar free; separating tonsil from its base along capsule with instrument and finger; looping the tonsil where it is still attached down along the triangular fold and snaring it off; hemorrhage arrested by thromboplastin, hot sponges, clamp or suture if required, injection of thromboplastin, or thromboplastin and compensation by normal salt per rectum. The vast majority recover normally, some do not. I therefore detail a few of the unusual.

Case 1. At 8 A. M. under a general anesthetic (ether) the superintendent of the operating room had a tonsillectomy. Pulse 88, temperature 98.6; bowels emptied. She was more cautious than usual perhaps and attended scrupulously to antisepsis and asepsis both of her nose and throat and of the instruments to be used, as likewise was myself. Hypo of $\frac{1}{4}$ morphine and $\frac{1}{150}$ atropine half hour previous. Operation performed in my usual manner; vomited some blood and expectorated medium amount of blood for several hours.

Normal salt solution given per rectum—four ounces per four hours three times, ice collar to throat, chipped ice in mouth. Enjoyed milk nourishment at noon; unexpectedly menstruating at 3 P. M.; very tired and chilly; cramps an hour later; steadily growing weaker, hungry but unable to swallow at 7 P. M. with temperature 101.4, pulse 102, respiration 28 and very restless with severe pain in back. Bromides per rectum; morphine at 2 A. M. gave rest. Urinalysis negative. At 8 A. M. little change in temperature, pulse and respirations but crying with pain in lumbar region and head, and very weak. Increase of temperature to 104.4 by 9 P. M. with pulse 120 and painfully expectorating profuse bloody mucous. On third day rectal feeding inaugurated, with bromides; pain and restlessness continuing. Nose stuffy and throat feeling full; spraying antiseptic solution at intervals and aspirin added to treatment. Chilly and perspiring alternately. Throat still full; milk expelled through nose on attempt to swallow. Exudate in throat unusually thick and yellow. Hypos p. r. n.

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Early morning of fourth day patient was flighty; temperature down to 102, pulse 120, respirations 26, throat pain intense and almost continual, expectoration of thick, sticky mucous throughout night; choking from an excessive mucous. Not able to swallow anything. Throat distinctly membranous, bleeding on disturbing membrane which covered tonsil areas, pharynx, post nasal space and thought to extend down to larynx although this could not be verified because of difficult examination. Diphtheria suspected, consultation called; consultant believing it to be streptococcus infection. Smear stained and culture started which established the diagnosis of the pneumococcus. Portions of membrane occasionally coughed out, yellow and bloody with fetid breath. Medication continued with rectal feedings every four hours of one egg, one pint milk, one ounce spirits frumenti, pinch salt. Patient continued extremely tired and weak with hideous dreams and night-mare, choking sensations, throat pain intense and aching generally with severe eye pain also; fear of choking to death and delirium. Throat application had been changed to heat and heat also applied to head and eyes. Trional gr. x in hot milk passed throat on fifth day and liquids per mouth from that time. Morphine and atrophine had to be resorted to at times throughout fourth and fifth days. Mucous expectoration losing its bloody and its yellow tinge and thinning; temperature slowly lowering. Pain in back continuing almost as severe as few days before, otherwise improving. Taking some food per mouth; continuing rectal feeding. At times profuse mucous expectorations; still very weak, tired, aching and extremely nervous. Convalescence very slow and without ever quite regaining entirely her normal nerve force and vitality.

Case 2. A young lady aged sixteen operated with slight loss of blood, returned to her home thirty miles distant at the end of four absolutely uneventful days in hospital. Seven days later, or during the night of the eleventh day after operation very dangerous hemorrhage took place which put her home doctor decidedly on the anxious seat for two hours. Roads did not permit auto travel and when I was about to take the first available train word came that the hemorrhage had ceased. I attribute the secondary hemorrhage to some final sloughing of the exudate. One of my colleagues had occasion to similarly care for another case some ten or twelve days after operation. It would seem that secondary hemorrhage may rarely ensue as late as from eleven to fifteen days perhaps. It at least points to the necessity of some well aimed procedure for the purpose of cleansing the throat for from two to three weeks after this operation.

Case 3. An interesting feature in connection with the stitching of the pillars for hemorrhage developed in a recent case. There was sufficient hemorrhage to warrant suture and it was placed, including the floor of course. Bleeding ceased promptly and patient was put to bed. Vomiting later brought a re-

currence of hemorrhage and I was called back to hospital. Injection and cold were used with indifferent effects. It was subsequently manifest that bleeding was pronounced only when patient, an adult, gagged or swallowed much. On further inspection it was found that there was bleeding from stitch wound at these times. My deduction was that the thread had passed through a vessel sufficiently large to tear and retear into the lumen through the side of the vessel whenever it was drawn upon by the gagging or swallowing. Cutting out the stitch with a short period of pressure was followed quite promptly by an entire cessation of the bleeding.

Case 4. As adenectomy is so frequently allied with tonsillectomy and inasmuch as we have just considered hemorrhage from this allied field I simply relate that I have had one case of adenectomy where I had to post-nasal pack in order as I believe to save a life. This is perhaps extremely unusual from this area, yet it should be considered. Our adenectomies should not be permitted to leave our care immediately after the operation. The case related did not bleed profusely at the time; hemorrhage beginning some three quarters of an hour later. A peculiarity of this case was that there was an almost complete membrane from the palate to the posterior wall of the pharynx separating the post nasal space from the pharynx proper.

Case 5. A married lady immediately upon conclusion of her tonsillectomy began to bleed from both sides. Her pillars were exceedingly thin. One pillar tore through in placing the stitch and a clamp was substituted. A stitch was successfully placed on the opposite side and patient put to bed. A few hours later clamp was taken off and next morning stitch was removed. Then it was discovered that the stitch which was placed in the second side had torn out of the anterior pillar. Fortunately the patient was not a vocalist, not a trained singer. However it took a period of several months before she could swallow with her former ease and drink with an assurance that liquid might not find its exit through to nostrils.

Case 6. A few of my patients have had a severe locking of the jaws following tonsillectomies which I attribute rightfully or wrongfully to an extreme widening of the jaws during the operation. These with one exception have gradually returned to normal but have seriously interfered with entrance of food into the mouth and with its mastication. The exception referred to continued for a period of six or seven days when his jaws were opened forcibly under anesthesia. Recovery was fairly rapid following this procedure.

Case 7. A six year old under general anesthesia was discovered to have widely dilated pupils followed a minute later by slight nystagmus and batting of eye lids. Another minute and there was some muscular contraction with suspended respiration. Artificial respiration and camphorated oil restored

his equilibrium and the operation was completed. There was no abnormality as to the urine and no history, personal or hereditary that would lead one to fear convulsions, and indeed especially not while under general anesthesia. Recovery from operation uneventful and complete.

Case 8. Another six year old, urinalysis, negative, tonsils being removed under general anesthesia was noticed to have widely dilated pupils, followed by nystagmus and batting of lids with possibly some slight exophthalmos. There was a slight tremor with abated breath, then an apparently normal condition with exception of dilated pupils. During this short interval the removal of the second tonsil was completed when the same cycle was enacted, with a short but distinct convulsion. This was followed in turn by another of increased duration and intensity with, of course, suspended respiratory effort. These seizures became intensified and of greater duration, and with each recurrence breathing was suspended for a longer period. Artificial respiration had to be instituted after each attack and the cyanosis increased with each attack. Camphorated oil was injected and bodily heat maintained. Patient kept in "head-inclined" position. Pulse at times was entirely absent and with no heart sounds discoverable. Finally artificial respiration failed to start the respiratory movement. At this juncture I succeeded in bringing back this function by forcibly breathing into his lungs as would a pulmotor. The convulsions continued and the pulmotor, which had been sent for, arrived. This was clamped on and for a time the same cycle was enacted; convulsions seemed less severe, less vigorous. After perhaps another five minutes we were certain that the patient's condition was improved and the pulmotor was kept in place until there was no intermission in his breathing, the convulsions gradually lessening in intensity and frequency. The heart action was accelerated greatly, reaching 200 when taken from the operating room. Pulse in one and one-half hour had receded to 160; to 140 in another hour and a half and to 130 an hour later, which I find the usual rate for this age child immediately following tonsillectomy. Recovery otherwise uneventful excepting for an insatiable desire for water, marked restlessness and a condition closely bordering on delirium. Sodium bromide was given per rectum. There was entire absence of the usual vomiting and patient was discharged from hospital the third day after operation. The seriousness of the situation was kept from the parents to as great an extent as possible of course in order that we might not be hampered in our two and a half hours efforts to continue the life functions. For convulsions beginning while a patient is under an anesthetic you would long look for the cause unless you can draw your conclusions from the symptoms which I have accurately enumerated. With both of these patients it was a case of cocaine or cocaine and adrenalin toxicology. I preferred to relate symptoms before telling you that I had injected this solution in both cases. You

will question why it was used with a general anesthetic.

Not all operators, but hundreds of them all over the country are using a cocaine and adrenalin solution injected around the tonsil to anesthetize and to lessen hemorrhage where the operation is done without general anesthesia. Usually a one-tenth of one per cent cocaine solution is prepared, to which from one to two drops of adrenalin is added per dram. Of this solution about two and a half drams are used or about one-third grain of cocaine for an adult. Toxicologists give three-quarter grains as minimum fatal dose. This has proven so effective and apparently so safe from my observation of other operators and from my own experience that I have for many years used the same solution on patients when under general anesthesia for the purpose of controlling hemorrhage and I think I can say that it does lessen it.

For children I have used a lesser amount so that the six year old has been getting about $\frac{1}{8}$ grain of cocaine in this solution. The possible toxicology in the first case occurred to me and I sent sample of the solution to Iowa City for quantitative analysis and it showed the per cent of cocaine to be 3.039 instead of one-tenth of one per cent as ordered made up. This would be 13.6 grains per ounce. You will understand then that my little patients received thirty-eighth grains or $3\frac{3}{4}$ grains instead of $\frac{1}{8}$ of one grain. The result of this analysis was not received until after my second poisoning.

It is safe to assume that idiosyncrasy or no idiosyncrasy the poisoning symptoms would have supervened. The lesson learned is three fold, viz; still greater caution and conservatism in the use of this drug; always considering the possibility of an idiosyncrasy, and always mixing our own solutions of whatever strength, not leaving it to any nurse, assistant or associate.

Text books also warn us that impurities in the composition of the drug or tablets may add to the possibility of toxic symptoms. I was not sufficiently impressed with the possibility of meeting with the same circumstance again to discontinue its use until my second case. It is needless to say, however that after the second case I immediately abandoned it altogether in these cases, even before receiving the analysis, and will use the drug still more sparingly for local anesthesia than heretofore. One cannot know of idiosyncrasies for certain drugs in a patient until he has the actual experience with that patient and therefore my warning, should any of you have been using it as I have, even in very weak solution.

It is not the province of this paper to enumerate substitutes and other anesthetizing drugs for this purpose, but to simply impress upon you some of the unusual sequellae following the use of this drug and these other unusual sequellae enumerated in this paper following tonsillectomies.

Discussion

H. G. Langworthy, Dubuque—I think these papers merit at least some discussion. It seems to me the tonsil operation is the operation among others where we seldom can tell exactly what will happen; it is an uncertain proposition at times, as occasionally one out of a large number of cases will have an unexpected hemorrhage or even end fatally as these things do happen even in the best of hands. Very often we can think back and ferret out the trouble and at other times not. From the foregoing it seems to me that if we take a good history of the case, surround it with all reasonable safeguards, perform the operation along well established lines which have been successful, and then not lose track of our patients altogether, so that we will be able to take care of them and they will at least be within reach of the physician in case anything happens; that we have done all that is humanly possible. I think it is best ordinarily not to speak much about what might happen in operative cases. We don't know ourselves. Often we frighten the patient, but if we are firm in the belief that the tonsils should be removed, we should take the proper course and remove them, knowing that there is little chance for failure and that much good will result.

Fred F. Agnew, Independence—I would like to mention one thing in regard to local anesthesia, and that is the use of adrenalin. It was my custom to use adrenalin in connection with local anesthetics—whichever one was used—up to about a year ago, and my reason for abandoning the use of it was the extreme liability of secondary bleeding following operation; consequently I quit using it entirely, and I have actually found that the work has been more satisfactory, I have had less secondary hemorrhage and when the patient left the table the bleeding was under control—whatever there may have been, and I knew just where they were at, which you cannot know if adrenalin is used. In regard to the choice of cocaine solution, I too have used the 1/10 of 1 per cent solution until about a year ago. When in service we received orders to abandon cocaine as a local anesthetic and use novocaine. This was used in ½ of 1 per cent and has proven equally satisfactory and much less toxic. I have seen but one case of toxic poisoning in quite a number of tonsillectomies done locally with novocaine, where in a much shorter time I had seen seven with cocaine, and I think the novocaine is considered seven times less toxic. I feel that it is well to make mention of this particular point, because we are all seeking to add safety to this operation, which is never, as you say, certain. If we

can by choice of anesthetic, by avoiding the use of things that may give us trouble, increase the safety of the patient, I believe we should do it, and I would like to hear the remarks of other men along this line.

A Member—I too have passed through the stage of cocaine and edged back to it again. I have had two cases where some of the synthetic drug has given me the same scare that I have had with cocaine, and the series of symptoms that I had attributed to cocaine I found that I had with the newer synthetic drugs, apothesine and novocaine. I think some of the symptoms that we have in the past attributed to cocaine toxin are wrongly attributed, and that a valuable drug has been given a bad name. So many of these synthetic preparations do not produce uniform anesthesia. At times I get good anesthesia with novocaine or apothesine; at other times the patient would complain of so much pain that I considered myself justified in returning to cocaine. I remember one time doing an operation before leaving Chicago, and I was using apothesine. My assistant remarked about the patient's color, and I have never seen a patient get as black as that patient was. We introduced artificial respiration and he finally recovered. I have had a couple of other cases similar to that, but not so pronounced. If I had been using cocaine I would have attributed it to the cocaine. I don't know what to attribute it to unless simply nervous disturbance. In doing a local on the tonsils the one which we may have to dread seems to be the cocaine being toxic; still if we are going to do local tonsil operations we must have anesthesia. Men won't submit to tonsillectomies under local anesthesia if they think they are going to have pain. One other thing that occurred to me regarding hemorrhage is a little method that I have used that I don't know is original, but it has been very efficacious. It is a loose gauze sponge packed in the tonsil forceps and made loose enough so that it will pass back in the fossæ, sewing a black linen or silk thread into the sponge and putting it on the hæmostat so it hangs out of the mouth, and packing it in well, and taking the pillar tractor and seeing that the pillars come down over. It stops all the oozing, and in cases where I have been called to see a case of secondary hemorrhage following the operation, it has been my custom to use that as a routine. Putting it in with a little pressure will check the majority of hemorrhages, and you can go away and leave the patient in comparative safety and feel that the hemorrhage is checked. Give the nurse instructions to remove it by simply pulling on the string. It is not uncomfortable at all, and is so much easier than to suture the pillars, and stays in place just about as well, because in suturing the pillars I should have to take the patient back to the operating room, which is quite a task in itself.

F. E. V. Shore, Des Moines—I would like to ask if any of the members have had any experience in the use of the induction anesthesia as practiced by

Dr. Smith of Chicago. He is a dentist who injects in the region of the ganglia.

G. F. Harkness, Davenport—I know little about inductive anesthesia from experience. A few years ago, when Dr. Harris brought out his work on inductive anesthesia, he included the tonsils, but as far as the technique was concerned, there was no real inductive anesthesia. Since coming back from the service I have had two experiences with novocaine that I have never heard of before. Two patients suffered from extremely intense headaches immediately following the injection of the old novocaine tablets. The tablets came over on the Deutschland, and I thought at first there must be a German spy back of it, but I think there was simply a deterioration of the drug. But I think a warning should be given against using any novocaine tablets which show discoloration, and I believe any bad results are due to the deterioration of the drug from age.

Dr. Lapsley—I don't believe my paper has been discussed, but I would like to say one word along the line of the discussion that has been going on. In most of my operations on tonsils I use ether anesthesia, but have used some local anesthetics, and I have had a few cases of cocaine poisoning that ran as severe as Dr. Frantz has described, and consequently I have been looking for other anesthetics. I used novocaine very satisfactorily, I thought, until it got so I couldn't get any; then I went back to cocaine, and a year or so ago I went to apothesine, and being an American product, I thought I would use that in preference to novocaine, if there was no objection to it. With me it has been very satisfactory, and so far in its use I have not had any poisoning effect. I have not had enough cases to know yet, and often a person has a certain amount of good fortune in practicing with some particular method, and one person's experience is not enough to go by unless all have the same kind. I have been using apothesine some in the nose rather recently. My experience has been a good deal less with that than with others, but it seems that it is a pretty satisfactory anesthetic in the nose, and I am inclined to believe that it is a good deal less poisonous than cocaine. I understand in the New York Polyclinic they use cocaine indiscriminately almost, and inject hypodermatic of morphine and claim to be able to use cocaine with perfect safety. In my cases of cocaine poisoning I have always injected some morphine, but did not know whether the morphine would get the systemic effect quickly enough; but something did some good. I think apothesine is a good local anesthetic to try out, at any rate.

Dr. Frantz—As I said in my paper, I did not attempt to outline any substitutes for cocaine; I was simply giving my experience. I have not been very successful with apothesine in throats, but I have in certain nose work. Of course novocaine has less toxic qualities than cocaine. It has not been my experience that injecting a small amount of adrenalin

makes secondary hemorrhage more likely. Most of us have used a very few drops in our local anesthetic work on the tonsil and have not been troubled with secondary hemorrhage very much. In the last three weeks I have had other tonsil cases, and injected nothing at all, and have not had any more bleeding than when I was injecting. As to the sponge on a string; I have been using that for some time. After you get the first tonsil out, pack a sponge in the fossa, but putting it in between the pillars. It tends to check capillary bleeding quickly while the operator is removing the second tonsil. It should be removed before leaving operating room. If it is necessary to use something similar after leaving operating room, use a clamp made for that purpose, you can tighten it just as much as you wish, it goes into place just as easily as a sponge and is certain to stay in place. I don't believe morphine is an antidote for cocaine poisoning. I have formerly tried it in mild poisoning in nose work but believe no beneficial results followed. I can say the same for amyl nitrite which has also been advocated.

THE LACRIMAL APPARATUS*

JAMES E. REEDER, M.D., Sioux City

The subject of blenorrhea of the nasal duct, with accompanying inflammation of the lacrimal sac, is one which should be more thought of by the profession as a whole. In fact it seems to me we have been temporizing entirely too long, upon such a serious affliction as dacryocystitis. We all must admit, that repeated probing, is of very little value where there is a stenosis, and it is so easy to make a false passage and no matter how dexterous one may be he is going to make a false passage sooner or later, and I do not have to tell you what may arise as the result of it. In fact, if probing is to be considered at all, it should not be done over once or twice, and if expected results are not obtained, it is then time to consider something more radical.

The wearing of styles is still used by some but I dare say the end results in these cases relative to a permanent cure the percentage is very small.

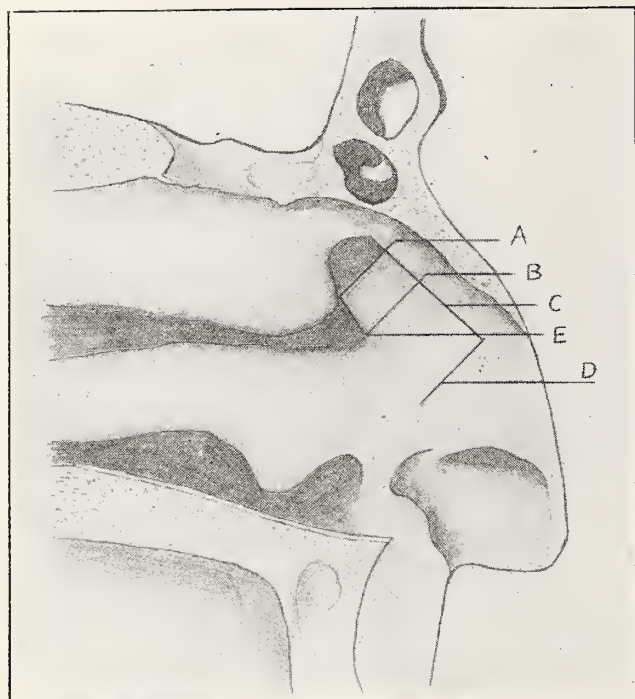
The exceptions to what I have just said are those cases of congenital stenosis and as Beard says, "in the percentage of cases it is not a true stenosis but a plugging up of the end of the nasal duct just at the opening in the nares, with a mucous plug and by one or two rather forceful syringings the percentage of cases will undergo resolution."

Chronic dacryocystitis is a very dangerous af-

*Presented at the Sixty-Eighth Annual Session, Iowa State Medical Society, Des Moines, May 7, 8, 9, 1919. Section Ophthalmology, Otology and Rhino-Laryngology.

fair for anyone to carry about, it can be compared to C. S. O. M. which is liable to go off at any moment and end fatally in meningitis brain abscess, etc.

One with a sac infection is liable to corneal injury at any time and if the conjunctival sac is continually bathed in pus, it is a miracle if the



cornea escapes without an ulcer and as most all of these chronic cases show pneumococci, is it any wonder that one-half of all ulcers serpens, are associated with chronic dacryocystitis.

It seems to me, we as ophthalmologists have not given the subject of chronic dacryocystitis the time and thought as we should, and has it not reached the place where we should stop our procrastination?

We would not temporize, with pus elsewhere in the body, why tolerate it here?

The Meller operation for extirpation of the sac has given very good results, but there are objections to this procedure. First, the patient has the fear of a scar, second, the question of tearing, you can assure him there will be no scar although there are exceptions. Relative to the tearing you can say there will be a diminution in the tearing but this is not always the case and a second operation for a partial resection of the lacrimal gland does not appeal to the patient. For the percentage of cases we see are those who come for relief of this annoying epiphoria and if this cannot be definitely promised your patient is going to hesitate in having his tear sac removed. On the other hand, I find when I broach the subject of

an intra-nasal operation the lay mind takes more kindly to it, than the exenteration of the sac.

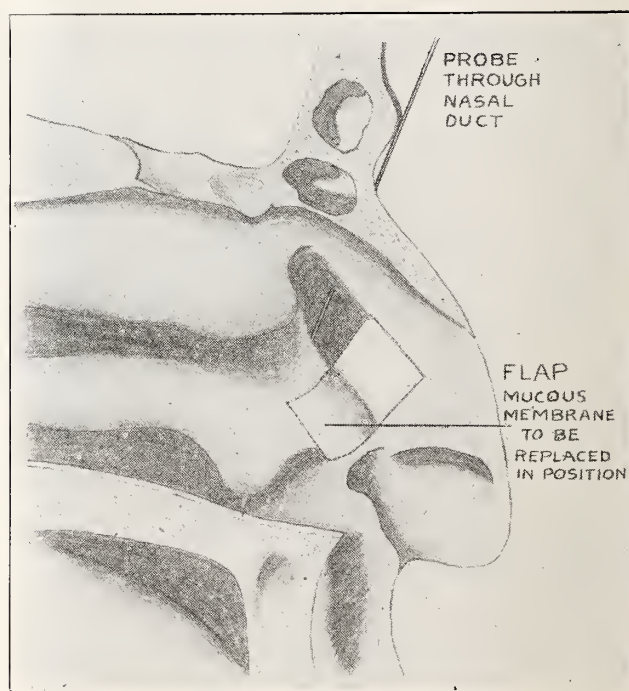
It stands to reason he should, for he will have a functioning tear apparatus and this is what he is primarily seeking as well as being relieved of the anxiety of an external defect.

The percentage of stenosis of the lacrimal apparatus occurs in the duct, and this at its most narrow point, which is situated just beyond the lower end of the sac at the beginning of the duct.

These conditions in which the West intra-nasal sac operation is indicated, are as follows: acute phlegmon, chronic dacryocystitis, dacryoblephorrhoea, fistulas, and secondary operations, following the Meller excision of the sac.

Before selecting a case for this operation the canalicule should be examined to see if they are smooth; if they are not, one need not hope for a very good result, for the canalicule must be able to perform their function and get the tears over into the sac, or what is left of it. One puncta should work, preferably the lower one.

There is one important factor to be considered, and that is the thickness of the bone, which varies from one mm. to four mm. in thickness. This



should always be borne in mind, as it is more difficult to chisel through in proportion to the thickness of the bone which covers the fossa.

The principle of the operation is to cause the tears to pass through the sac directly into the nasal chamber without going into the inferior meatus via the duct.

It was in 1913 West reported over 200 cases,

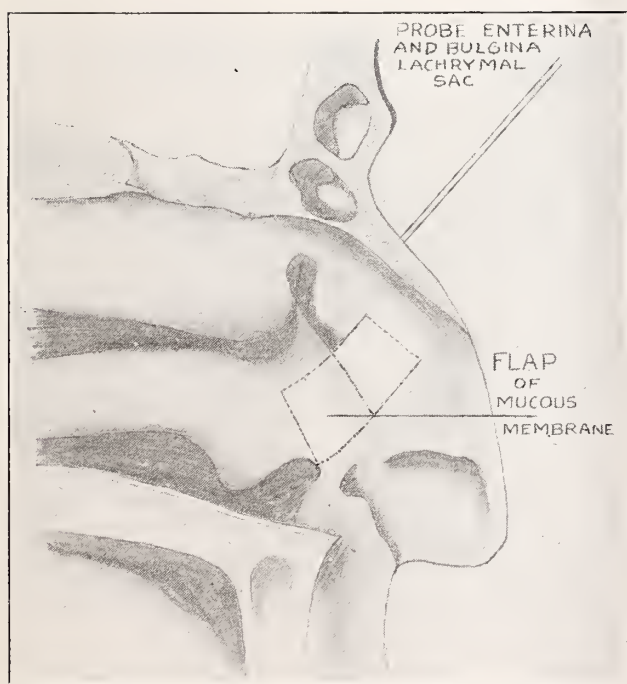
with a positive fluorescein test in 90 per cent.

The technic of the operation is divided into three steps, a preliminary incision of the puncta having been made a day or so previous to the operation.

1. If the nasal septum is deflected in such a manner as to obstruct the view, then a partial resection of the septum is made. This should be done from the opposite side for obvious reasons.

2. When the anterior end of the middle turbinate is large and covers the fossa it is necessary to resect the anterior portion of the middle turbinate.

3. The flap. This is made with the view of not alone providing a window at the floor of the sac, but also to gain room so as to facilitate a better view of the field. Incision (a) is made rather vertically and high up. Incision (b) is made about one-half inch down but parallel to incision (a). Incision (c) is then begun beyond the line of incision (a) and at right angles to it. This overlapping of the incisions is very important for it allows the parallelogram of muco-periosteum to be easily lifted without tearing. In-

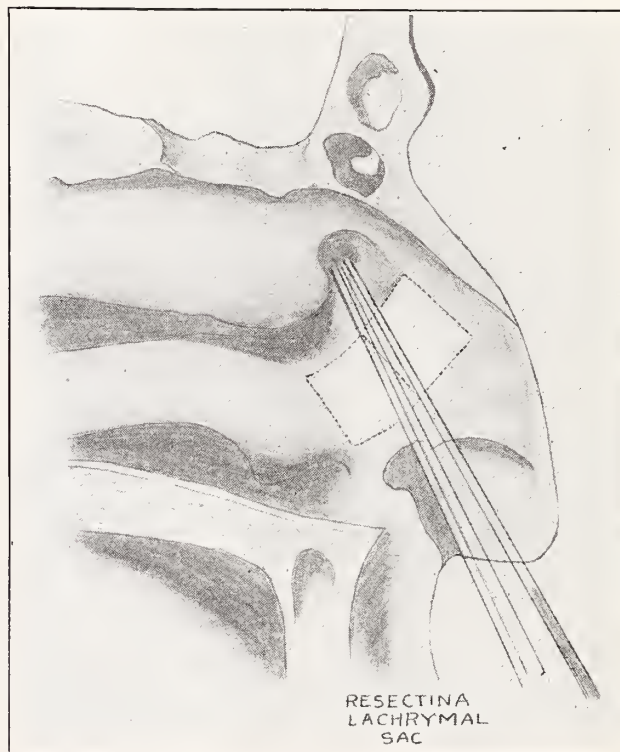


cision (d) is then made on a line with the aperture pyriformis. Incision (e) is made parallel to incision (c) as shown, and crosses lines (a) and (b) figure 1.

A preliminary anesthesia is obtained with cocaine and adrenalin in the usual manner, an injection of one per cent solution of novocaine is made at the junction of the skin and mucous

membrane and in the neighborhood of line (d) figure 1.

The torus lachrymalis is the name given by West to a very important anatomical landmark. It is caused by the floor of the sac pushing itself



toward the nasal chamber. It is at this point the chisel should be placed in resecting the wall of the bone.

Upon getting the sac clear of bone, sufficient to make the resection, a sound is passed through the canaliculus and gently pressing the sac into the fenestra made in the bone (figure 2) you then reach in with the grasping forceps, and upon securing a firm hold, you endeavor to get a good portion of the sac.

The after treatment. The gauze pack is removed at the end of the third day, the sac is then washed through the canaliculus until it seems to come through the anterior nares, clear, this is done in order to dispose of any clots which may have formed.

The operation is not considered successful unless a drop or two of fluorescein (2 per cent) is dropped in the conjunctival sac, while a piece of cotton having been placed, on the middle turbinate, and in a few minutes withdrawn, stained with the fluorescein.

CONCLUSIONS

The advantages of operation are:

1. A functioning tear apparatus.
2. No external scar.

3. No epiphora.
4. Epiphora due to stenosis of the duct is permanently relieved.
5. It is possible to operate in the presence of an acute phlegmon and promote drainage.

Discussion

Dr. E. R. Lewis, Dubuque—This is a very important subject that Dr. Reeder has brought up. I have had no personal experience with the intra-nasal operation; I have done a few of the Meller operations with satisfactory results. I was talking with Dr. Reeder this morning about a case that I saw a few days ago, and several questions arose. In the first place, this operation does not provide nature's valvular protection against infection of the lachrymal sac from below. I would like to know whether there is any reason for regarding this as an important consideration, in the experience of those who have done many of these operations. We know that nature contemplated protection against that, and it occurs to me that that might constitute a more or less important consideration in the mechanical reconstruction of this drainage apparatus. I would like also to know what the experience has been in the acute stage with drainage intra-nasally—whether there is a distinct advantage apparent over the more conservative, older methods of attempting to tide cases over without an external rupture and do a secondary operation after the stage of acute phlegmon has subsided.

Dr. W. W. Pearson, Des Moines—I dislike to see the discussion of the subject closed without some reference to the use of the curette. I believe the name of the gentleman from Texas who suggested this method of treatment is Thompson. I personally have had no experience with it. I was somewhat interested last year, however, in hearing at the Academy meeting at Denver a number of favorable reports. Dr. Green of St. Louis was one, and I recall several men who said that theoretically it did not seem right but on the recommendation of Dr. Thompson they employed the curettes and were greatly surprised at the results. The assumption is that there is some foreign body or something that has provoked the formation of a stricture and its removal by means of the curette effects the relief contrary to the first impression. I take it that there is some difference in the manner in which the curette is employed, however, and it is the newest thing so far as I know, and should be mentioned here. In regard to the intra-nasal or West method, or some of its modifications, there is no question but what some of these cases do well. It depends largely upon the operator. Some operators make too small an opening and it closes. I recall about ten or twelve years since, in a conversation with Dr. Gifford of Omaha he told me he had found something a few years previous to that time which he thought really had some merit. He devised a sort of a punch similar to that the harnessmaker employed in punching holes in a strap. He would introduce one jaw into the lacrimal

sac and the other a flat surface in the nose and punch a hole through into the nose. However, he said it did not prove as successful as he had hoped it would, because of the closure. The West operation contemplates a much larger opening than Dr. Gifford employed in his operation, yet the fellow who has been in the service longest is the one with the least enthusiasm, as a rule. He has got over the top of the hill and is looking back over the different methods and contemplating the new ones, and his enthusiasm does not carry him to the point that he anticipates the perfect result in every case, but he is in a position to place a value on the different methods and take the one which seems best suited to the individual case. Many times the peculiarities of the patient, type and location of the obstruction has much to do in determining the method of handling it.

Dr. G. F. Harkness, Davenport—The intranasal operation is not new, in fact, history takes it back a good many years; but the early history was that the opening was not large enough. We are going to have failures, however, it seems to me, because people are not living in normal conditions, as nature intended. There is just one point in this operation at which one is liable to spoil the result of the operation, and that is the manipulation of the probe or the dilator in the puncta. Bruising of the tissues there will result in stricture of the puncta and the slitting and tearing of the tissues so that you have done away with the suction apparatus of the lacrimal sac. It is a very minor thing, and yet it seems to me it is very important to use extreme care in the work about the puncta.

Dr. R. M. Lapsley, Keokuk—I don't know that it is exactly discussing the paper to speak of Dr. Thompson's operation, but I saw Dr. Thompson operate at the Illinois Eye and Ear Infirmary, and he was so enthusiastic about it, and Dr. Woodruff seemed to approve of it. I have only tried it on one case, and I was not expecting much, but I have never had any better results with anything I have tried. This was a double lacrimal abscess, and I tried the Thompson operation on both sides. His operation is not very hard to carry out, and the results that I have gotten so far surprised me. It involves curetting out the canal and sac very thoroughly, and then swabbing it with a solution of iodine. In probing I did not know how large a probe to use, so I gradually worked up to a No. 13 on one side and a No. 12 on the other. I let the patient go two weeks, and I expected there would be quite a stricture when he came back, and maybe I would not be able to get those probes in, but there was not much difficulty in introducing them. I let him go two more weeks, and then I introduced the probes without any difficulty from my point of view, and there was not any put there the last time he came back, and the openings were apparently very free. That was the most gratifying result I have ever seen in a lacrimal case that I have had yet. That is not a long enough time to tell, even in his case, but I thought I would try it

again. Dr. Thompson seemed like a very competent man, and if he is not misrepresenting it he has got very beautiful results in a good many cases.

Dr. Reeder—In answer to Dr. Lewis's question, that has been quite a problem, but the rhinologists are getting away with it. I think the danger of infecting the cornea is not so great as probing and temporizing, and I have not seen any statistics or known of any cases where there has been a secondary infection of the cornea following the intranasal operation. It is true this is merely an operation of choice, and you have to select your cases. It is not indicated in all cases by any means. My experience with the Meller operation is that you do not get the desired results. I recall one specific instance where the patient had a very severe case of chronic suppurative dacrocystitis with a secondary iritis. I removed the sac with the result that the iritis cleared up in a very short time and the patient was quite comfortable, except for a slight epiphory. His primary object was to be free from the annoying epiphory. He did not appreciate the danger and the possibility of loosing the eye by the conjunctiva being bathed in pus at all times. In fact, he was so displeased that he almost threatened to bring suit against me and it goes without saying he refused to pay his bill. I have followed out the West operation in a number of cases and my results have been very gratifying to compare with the Meller operation.

SEX EDUCATION OF GIRLS

Science has met and conquered the various scourges and plagues of the world until the most formidable one which faces us today is that of venereal disease. The trend of medicine today is preventive and especially is this true regarding the Black Plague.

Education is one of the best possible weapons against venereal disease, combined of course with proper legislation, and access to scientific medication for the cases already existing.

Young men in service have received education on health subjects, but girls and women have not.

As a rule women are very ignorant about themselves—their physical and psychological selves. Not understanding the mechanism of their bodies, they often mar their health through ignorance. Not understanding the dangers of undisciplined emotions, they often meet disaster. No one has advised them regarding the physiology of their sex; no one has mentioned the emotional and psychological changes which occur in adolescence.

The United States Public Health Service in co-operation with the Iowa State Board of Health, has endeavored to give this information to the women and girls of Iowa during the past year, and provided the free services of a state lecturer for women.

As that lecturer, it has been a real pleasure to meet the girls of Iowa and their mothers; and I have found them attentive listeners, interested and eager

to learn, quick to ask questions, and responsive to appeal for moral standards and clean communities.

The mothers ask one unvarying question, "How may I answer my child's questions about the beginnings of life, and at what age should I answer them?" They are more concerned about this, I believe, than about the dangers and prevalence of venereal disease, and it has indeed been a pleasure to clear away the perplexities of worried mothers.

The adolescent girls with their shy little questions on social conduct—so important to them, and their vague anxieties regarding their health—which color their whole life, were especially appealing. I am afraid that adults forget the viewpoint of adolescence, forgot how vividly and intensely the child lives under the surface she presents to the world; and the answering of these questions and putting young minds at rest, was a real pleasure.

If women in industry, in factories, in business, in clubs, were to set forth the facts that venereal diseases were very common, very serious, very contagious, yet amenable to treatment if taken early; that quacks who advertised to cure them were simply after the victim's money; that government clinics had been opened in the larger cities of Iowa for free diagnosis and free treatment for anyone who could not go to his family physician.

A summary of the year's work is as follows: four hundred and sixty lectures reaching 66,550 women and girls (at a cost of a little less than five cents a girl).

These lectures were given in seventy cities and towns of Iowa; and in the States of North Dakota, North Carolina, Louisiana, and lastly in Brussels.

This report would not be complete unless thanks and acknowledgment were made to club women, superintendents of schools, Y. W. C. A., sodalities, churches of all creeds, Red Cross chairmen and county medical societies, for their generous assistance and efficient aid in arranging for lectures and advertising same.

Jeannette F. Throckmorton, Ph.B., A.M., M.D.

ENROLLMENT IN MAYO FOUNDATION

During the current quarter which began April 1, 151 graduate students have been registered in the Mayo Foundation for Medical Education and Research, Rochester. Each of these students is registered for a period of three years or more. The fellows, 130 in number, are distributed as follows: surgery, 86; internal medicine, 20; otolaryngology and rhinology, 7; urology, 5; ophthalmology, 4; pathology and dermatology, each 2, and chemistry, bacteriology, roentgenology and orthopedics, each 1. Among the scholars, who are not candidates for advanced degrees are 10 in surgery, 4 in dental surgery, 2 in orthopedics, and one each in roentgenology, internal medicine, dermatology, urology and otolaryngology and rhinology.—(Monthly Bulletin.)

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No. 9

CLAIMS FOR MALPRACTICE

When we consider claims for damages for unsuccessful or unsatisfactory treatment, we often overlook the fact that we are meeting the ordinary experiences of society. Nearly every man, who is not insensible to public opinion feels that he is unfairly treated when a claim is entered against him for damages—unless it is an automobile accident where a special code applies. To the professional man a claim for damages has a double meaning, one refers to his small accumulations, and the other to his reputation as a physician and surgeon. If a judgment is entered against him the presumption of negligence or unskillfulness is established because twelve men have listened to the evidence and have decided on a verdict, which will stand if not reversed by a higher court. It is generally admitted that a conviction for carelessness and unskillfulness is most undesirable. A verdict of this kind is interpreted differently by one trained in medicine, who knows of the difficulties encountered in dealing with human ailments and accidents. It is exceedingly unfortunate that the cases for malpractice should lay with a jury utterly unfamiliar with professional matters and it not unfrequently happens that the doctor is saved only by the interposition of the court. It is therefore of the greatest importance that the case be presented by one skilled in the law, for the benefit of the court, and for the information of the jury.

The theory of the State Society defense is to secure a safe method of protection. The committee is not merely a clerical body to audit bills for such expense as the defendant may think he needs. The committee is not permitted to go out and inflict punishment on one who presumes to claim damages, as has been suggested.

If a case goes into court it must be tried on its merits—if there is any sentiment, it is usually on the side of the plaintiff—therefore, a full preparation must be made before the case goes to trial. If such a preparation is not made and the defendant depends on a brilliant plea a good case will often fail. We have seen this happen many times in the trial of personal injury claims. The committee, therefore, insists that a physician sued or threatened with a suit shall make a full statement of his case, the facts arranged in chronological order. The treatment should be set forth in detail, and as many of these cases go from one clinic to another for an opinion, for advice or treatment these facts should be set forth and if possible, the defendant doctor should keep himself informed of the facts not only in relation to the clinics, the plaintiff's visits, but names of all individual doctors he may have consulted.

As soon as the committee is informed of a claim being presented, the chairman looks up his card index to find if the doctor has paid his dues for all the years since he began treating the case under consideration. (This is in accordance with the provisions of the by-laws) and if he is in good standing in his local society. As soon as the facts have been ascertained, then the first statement made by the defendant doctor to the chairman is forwarded to our chief attorney together with a statement of his standing in the state and local medical society, with an authorization to undertake the defense. Then the committee follows the case from clinic to clinic or from one individual doctor to another whom the claimant may have consulted, for whatever knowledge he may be able to obtain, not only as to facts, but as to opinions, and what the attitude would be in the event of a trial at law and what would be the character of the doctor's testimony, if he should be called, as a witness. This is all very important for several reasons, we must know what our standing in court will be and what we may be confronted with, so that we may not be taken "by surprise." All this information of a medical or surgical character is forwarded to our chief attorney with an expert analysis of medical facts and opinion and the medical difficulties that may confront us and the theory from a medical stand-

point upon which the case should be tried. This correspondence is always confidential and only for our chief attorney and the three members of the committee.

Four copies of all this correspondence are made; the original for our attorney and one for each member of the committee. Each member of the committee knows all that is being done as each has a full file. There is also much correspondence between the different members of the committee on facts and opinions. The correspondence in many of these cases would make a small volume. It is a matter of much surprise as to the difficulty we meet with in getting prompt and clear statements from the defendant doctor.

It would appear sometimes, that the doctor with a malpractice suit on his hands thinks that when he notifies the Committee that he is sued or threatened with a suit, that the committee drop the announcement into a machine and it comes out with a release from all obligations, but we assure you, it is not so, no railroad or other corporation would expect this and our case is not different.

It is the practice of some defendant physicians to send their first communication to the secretary of the State Society or to our attorney. There is no objection to this but all these communications must go to the chairman and this causes a little delay.

The most trying fact connected with this business is the employment of local attorneys by the defendant physician, not only in the matter of expense but on account of the complications that are liable to arise on account of lack of knowledge on the part of local attorneys of the law applying to malpractice.

In not a few cases it has required all the skill of our chief attorney to extricate us from difficulties we have gotten into, even in filing an answer.

It does not appear that a doctor has a better judgment in selecting a lawyer than a lawyer has in selecting a doctor, a good fellow and a good friend will not always help us in a malpractice suit. The Committee, for at least ten years, has urgently requested defendant doctors not to employ an attorney on the account of the State Society without its knowledge. We have sent out rules and have printed rules in the journal, there is furthermore a by-law covering the subject, but all in vain. Doctors do not read or are indifferent to rules of the State Society but carefully inform themselves as to the nature of their contracts with commercial malpractice insurance, fire insurance, automobile insurance and why not their state

malpractice protection. When we consider that claims to the amount of nearly two hundred thousand dollars (\$200,000) a year against members of the Iowa State Medical Society are resisted by the committee it does not look to us as a small matter. Many cases never come to trial and no local attorney is needed. If however, a local attorney is needed and the doctor has a choice, that choice will be respected, if consistent, with his interests.

This is not altogether an individual interest but it affects the entire profession of the state. There are all kinds of malpractice suits, some are legitimate, some are questionable and many must be defended on their merits, very few will succeed if the defense is properly prepared and presented. All blackmail cases will fail. No member of the Society should compromise malpractice claims, even if they do give him some trouble. Compromise only encourages other claims, not only against himself, but against others.

There are a few doctors who feel entirely competent to care for their own, do not need the Committee, not a few of these have got us into trouble in making hysterical demands when danger is near and we are unprepared.

We have little fear of malpractice suits when the attending doctor has been interested in his case, makes a candid statement in detail and avoided local attorneys.

SHORTAGE OF PHYSICIANS

The Boston Medical and Surgical Journal of May 27, 1920, in an editorial calls attention to a serious shortage of physicians in the United States and an increase in the number of quacks and predicts that the conditions for the next few years will be worse rather than better.

The reasons for these conditions appear to be due to a greatly increased cost in securing a medical education and the uncertainty of the rewards obtained for professional services. If the promising young man discovers that various lines of business offers more in the nature of rewards than medicine, it is quite natural that he will prepare himself for some calling more profitable.

Referring to the medical course and the length of time required the editorial states:

Looking beyond the confines of the college and medical school, we find that the practitioners of medicine are roughly divided into progressive and unprogressive; that this division does not depend upon their previous education; that the incomes of the several men are not so much dependent upon

their professional skill as upon their business ability. Snap diagnoses, slovenly treatment, and failure to use modern methods in diagnosis and treatment are driving patients from office to office until they arrive at some quack's who has sufficient knowledge of psychology to fool the sufferer.

Again in relation to Army Medical Service:

As is well known, there was a time when the only attempt at maintenance of a high standard of medical proficiency was made by the Army and Navy. The standard on entrance was very good but it was learned that after a man passed his second examination, many of them progressed no further. To overcome this, about the time state examinations began, laws were enacted which ultimately required that every member of the medical corps, up to and including the lieutenant-colonels must demonstrate their professional ability before being promoted. The result is that in the medical corps of the Army and the Navy you will find a body of men read in their profession and alive to modern methods.

To prevent the disaster which is sure to come to the public if this condition continues, may we not appeal to the public for increase of pecuniary rewards. If the increased fee bill rates now proposed are kindly accepted by the public it will go a long way in making the medical profession more attractive.

The fifth annual review of the British medical services in the war shows that the loss of medical men was 1086 divided as follows:

Year 1914—five months, killed 46, died 19, total 65.

Year 1915—killed 97, died 45, total 142.

Year 1916—killed 162, died 98, total 260.

Year 1917—killed 200, died 93, total 293.

Year 1918—killed 173, died 163, total 336.

During the war 678 were killed and 408 died, total 1086.

The total loss of medical officers was far greater than that of any other class.

MORTALITY STATISTICS OF INSURED WAGE EARNERS IN RELATION TO CANCER

Louis I. Dublin, statistician, Metropolitan Life Insurance Company, has compiled statistics of that company for a six year period and finds that:

1. The current medical opinion that there is a strong association between low economic status and a low cancer death rate is in all probability unfounded.

2. The cancer mortality rate at the ages where

the cancer rate is significant decreases as we go up in the economic scale.

3. This is true for both sexes and by age period where sufficient data are available.

4. This conclusion is not conditioned by the effect of varying amounts of medical selection in the three groups considered.

These studies of insured wage earners were published in "The Journal of Cancer Research" for July, 1919. While these statistics related to a selected class they are suggestive and have an element of reliability. The paper is an exhaustive one and may be studied with advantage by those interested in this subject.

AMERICAN CHILD HYGIENE ASSOCIATION TO MEET IN ST. LOUIS

In the program of any large public organization—religious, philanthropic, educational, or even political—there is at least one "plank" held in common and on which all are agreed, and that is the importance of public health. Our own draft experience in the recent war and the experience of England, who found in 1918—to quote an eminent statesman—that she was "a nation of C men," awakened the world to the importance of what a few of us medical cranks have been preaching for years. While some attribute the chief factor in our physical deterioration to venereal disease, others to tuberculosis, etc., each according to his individual hobby, there is one thing to which all agree and that is, that the basis of all public health work lies in the proper hygiene and education of the child. In this connection the meeting of the American Child Hygiene Association at St. Louis on October 11, 12 and 13, is of particular importance. The American Child Hygiene Association, although an organization of all persons interested in child hygiene, has been fortunate in having its policy directed by a group of medical men who have been interested in this work. Too many of the public welfare movements in recent years have lost much of their value in not having intelligent professional guidance. Starting a number of years ago as The Association for the Study and Prevention of Infant Mortality the work of the organization has gradually shaped itself to cover the entire field of the health of the child from conception to adolescence, and for that reason the name was changed to its present one in 1918. The coming meeting, which will be the first one that the Association has held in the Southwest, will be of great interest to physicians interested in obstetrics, pediatrics and public health, and a well

rounded program covering the various phases of the subject, has been prepared.

In close association with this meeting is the meeting of the Central States Pediatric Society, which meets in St. Louis on October 13 and 14—the meeting on October 13 to be a joint meeting with the American Child Hygiene Association. The Central States Pediatric Society is one of the newer hustling young specialty societies with a membership extending from Buffalo to Denver and from Wisconsin to Texas. Organized a few years before the war it survived that struggle with added strength. In the Middle West where the number of specialists in a given subject is too few to encourage the formation of state specialty societies, the formation of societies along the lines of the pediatric society is worthy of further development. The program is furnished at each meeting by the members residing in the city where the meeting is held and is essentially practical in character. It is a meeting to which the members go to see rather than to hear what is being done. The two meetings together offer a most unusual opportunity to the physician who is interested in any one of the multiple phases of child hygiene or public health.

PRELIMINARY PROGRAM, AMERICAN CHILD HYGIENE ASSOCIATION

The following preliminary program has been announced for the meeting of the American Child Hygiene Association at St. Louis on October 11, 12 and 13:

OPENING SESSION

Monday Morning, October 11

Opening Address by the President, Dr. Philip Van Ingen, New York.

Reports of Affiliated Societies.

AFTERNOON SESSION

The Problem of the Expectant Mother in Rural Communities.

The Unmarried Mother Before and After Confinement. Dr. Foster S. Kellogg, Boston

The Nursing Wards in Maternity Hospitals.

Dr. A. N. Greadlick, Associate Professor of Obstetrics and Gynecology, Yale Medical School, New Haven.

Tuesday, October 12

MORNING SESSION

The Problems and Treatment of Early Dental Defects. Dr. Thomas D. McCleave, Berkeley

Discussion opened by Dr. Joseph S. Wall, Washington.

The Mental Health of the Child.

Dr. C. Edgerton Carter, Los Angeles

Discussion opened by Dr. William C. Hassler, San Francisco.

Standards and Methods for Health Work Among Children of Preschool Age.

AFTERNOON SESSION

Methods of Publicity in Health Education.

Miss Sally Lucas Jean, New York
Heart Disease in School Children.

Dr. Charles Hendee Smith, New York
Economy of Preventive Measures in the Nutrition of School Children.

Miss Lucy H. Gillett, Boston

Wednesday, October 13

MORNING SESSION

Prevalence and Management of Tuberculosis in Infancy Dr. Theodore C. Hempelmann, St. Louis

Discussion opened by Dr. May Michael, Chicago
How Can a Public Health Nurse Organize and Conduct Infant Welfare Clinics, Especially in Rural Communities?

Miss Zoe La Forge, Washington, D. C.

Discussion opened by Miss Minnie H. Ahrens, Chicago.

Boarding-Out vs. Institutional Care of Infants.

Dr. Florence Mabel Holsclaw, San Francisco

Discussion opened by Dr. Henry Chapin, New York; Dr. Alfred Hess, New York, and Miss Caroline Crosby, Minneapolis.

AFTERNOON SESSION

Round Table Conferences

Directors of State and City Hygiene Bureaus.

Dr. Anna E. Rude, Washington, D. C., Chairman
Nurses. Miss Winifred Rand, Boston, Chairman

Rural Health Problems.

Mrs. Ruth A. Dodd, Columbia, S. C., Chairman

COLONEL LOUIS ANATOLE LAGARDE, M.C., U. S. A.

An Appreciation

Along life's pathway we here and there touch with a character that makes the journey happier and more worth while. Colonel LaGarde was one of these. The "dear Colonel" he was to most of us, "the Colonel" to all his friends.

There are a goodly number of Iowa physicians who will appreciate this sentiment, for all who came to know Colonel LaGarde in recent years, held him in highest regard. He visited this state on a number of occasions, gave an interesting address on his favorite theme of gunshot injuries in September, 1917, before the Polk County Medical Society, and many reserve medical officers met him and attended his lectures at the training camps of Fort Benjamin Harrison, Fort Riley, and Camp Greenleaf, Ft. Oglethorpe.

Devoted as he was to the interests of the regular medical corps of the army, having been a part of it

for nearly half a century, he always had the highest appreciation for the medical reserve officer. He nearly incurred official disfavor when early in 1917 in an address before the district medical society in Baltimore, he gave the assurance that physicians entering the medical reserve corps would receive proper recognition and rank as company, regimental, brigade, and division surgeons, in keeping with their standing and qualifications in civil practice. There is no doubt a prevailing impression that Iowa physicians did not always receive just recognition, but the statement can be made at this time, that much of the advancement in rank and appreciation of service that did come to them, was in a large measure due to the interest and influence of Colonel LaGarde.

It was the privilege of the writer during the past four years to enjoy the intimate acquaintanceship of the Colonel as a member of the National Board of Medical Examiners. As a traveling companion in numerous visits to the larger medical centers of this country, sharing quarters in military barracks, and daily association during a three months' trip in Europe gave ample opportunity to appreciate the fine traits of character that made everybody love LaGarde.

This is not intended as a biography, except to present such facts as will form a proper background for an interesting and romantic career.

Born of French (Acadian) parentage in Bayou La Fourche, Louisiana, April 15, 1849, he retained through life the characteristics of his ancestry that added so much to his personal charm. He received his early training in the Louisiana Military Academy, and in 1869 entered Bellevue Hospital Medical College in New York City, graduating in 1872, after which he served as one of the first three interns of Roosevelt Hospital. He entered the United States Army in 1873 as a contract surgeon, being soon after commissioned in the regular medical corps, and devoted the remainder of his life to military medical service.

The first eighteen years were spent on the western plains in Indian campaigns, and at frontier posts. This life appealed to him with its opportunities for the hunt and the chase in their primitive abundance, so that when the offer of an eastern station came to him, he asked that he might remain for a while longer away from civilization. While with General McKensie's cavalry in the Powder River expedition in 1876 he was twice commended for gallantry under fire. At the Columbian Exposition in Chicago he was in charge of the government exhibit of the medical department of the United States Army which included the first complete demonstration of a clinical laboratory in this country. During the Spanish-American War he was in charge of the only American hospital in Cuba at Siboney, at which Surgeons Gorgas and Ireland (former and present surgeon-general) acted as his assistants. He represented the medical department of the army at the International Congress of Military Surgeons at Paris in 1900, pre-

senting an address on gunshot injuries. Later he served as chief surgeon of Ilo-Ilo in the Philippines for a period of three years, followed by a service in the Isthmus of Panama with Colonel W. C. Gorgas, where he established the Ancon Hospital. It was as commandant of the Army Medical School, Washington, D. C., that his interest in medical education became specially manifest, which was further stimulated by his subsequent lectureship in military surgery, at the University of New York and Bellevue Hospital Medical College and the University of Virginia Medical School.

Among his scientific achievements should be mentioned the epochmaking contribution on the infectivity of bullets inoculated with tetanus bacilli, demonstrating that the heat generated by the explosion of the bullet does not sterilize the same or destroy microorganisms of a virulence such as anthrax and tetanus bacilli. This work was carried on at the Johns Hopkins Hospital during 1890-92 and has profoundly influenced the treatment of bullet wounds in subsequent military campaigns.

His textbook on gunshot injuries, which has passed through several editions, is a classic of its kind.

His expert knowledge of ballistics has been of great value to the ordnance department of the army. As a result of his experiments while testing the efficiency of the Krag rifle the nickel jacketed bullet now in service was adopted. By his animal experiments to demonstrate the shock producing stoppage power of bullets of varying calibre and velocity, he developed the 45 calibre automatic pistol which has been adopted by the army and proved of inestimable service in the World War.

As one of the original members of the National Board of Medical Examiners he has been an enthusiastic promoter of its aims and purposes, and at the recent examinations in St. Louis and Chicago, he participated as examiner in surgery at both places, and in his official capacity as treasurer of the board, fulfilled all the duties, signing the last voucher on the day before his death, March 7, 1920.

On the entrance of this country into the World War he was again placed on active duty and served as instructor in military surgery in the several medical officer's training camps, and as advisor to the office of the surgeon general. In 1919 he was sent to Europe as a member of a commission representing the National Board of Medical Examiners to study qualifying examinations and methods of licensure in France and England, with the purpose of promoting a better mutual understanding and recognition of American standards of medical practice. His wide acquaintanceship, familiarity with the French language, and official procedure, were a distinct factor in the successful accomplishment of this mission.

Being a delightful raconteur he was the life of every company. His interesting recollections of boyhood days in the Southern Confederacy and intimate acquaintanceship with leaders on both sides of the Mason and Dixon line, his life as an Indian fighter

and a surgeon of the frontier, of experiences in the Orient, Cuba, Panama and Europe, formed the basis of many a good story. True to the tenets of his French ancestry and aided by the art of the trained connoisseur, he excelled as a host and entertainer and charmed every gathering with his fine spirit of fellowship.

The writer recalls many such happy occasions, several of which stand out most vividly. In the so-called "Cliff House" that isolated barracks on the hillside at Ft. Riley, set up well above the ground so that the ventilation might be as perfect as possible, there was served on a snowy day in March, 1918, a five course dinner, a la Louisiana, fit for a king, that the honored guests Surgeon General W. C. Gorgas and Dr. Arthur Dean Bevan, president of the American Medical Association, will always remember, prepared by the genius of LaGarde, who with Colonel Isador Dyer of New Orleans, was both host and chef. The Colonel was a picture with his portly figure, moving about in a kitchen that was crowded whenever he bent forward.

Another occasion was a dinner of "frog legs" at Ft. Oglethorpe in honor of General Fetherstone, medical director general of Australia, who was passing through on an inspection tour.

Colonel LaGarde belonged to that type of southern gentleman that regarded the proper preparation of food as an art, and a real sign of culture.

To illustrate the happy relations with his colleagues in the service, the following incident may be cited, it occurred but a few days before his death. One morning at the Congress Hotel Chicago, Surgeon General Ireland inquired "where is the little boy?" (his pet name for the Colonel). "Let us go to his room and find him." The room was at the end of the corridor, the door was locked, and it was decided to wait for the next elevator to come up, the same being at the end of the corridor; soon the Colonel stepped out but turned in the opposite direction. The Surgeon General, with his tall soldierly figure, who can still qualify as a sprinter, without hesitation started on the run after him, calling "Hey, little boy, you don't know the way home." To see these two comrades come back, laughing, arm in arm, with a jaunty springy gait, formed a picture to be remembered. It was commonly noted when Colonel LaGarde was announced in the office of Surgeon General Ireland, the latter would promptly stand up, salute and say, "Good morning boss, what can I do for you?"

At seventy years of age, to hear him discuss the spread of infection in modern bullet wounds with such authorities as Sir George Makins and Sir John Watson Cheyne of London, indicated his familiarity with current medical thought. During a visit with Dr. Osler at Oxford he gave further evidence of being versed in the art of wit and cajolery, that matched this famous joker of the profession.

When the bugler sounded taps on March tenth last on the sunny slope of Arlington cemetery and the

triple volley was stilled, there passed from earthly companionship one of those rare spirits that leave naught but happy memories behind.

To quote from an editorial in the New York Times of March 15:

"In Cuba and the Philippines a base hospital with the untiring LaGarde in charge was a place of energy, well directed effort and orderliness. Whether he was organizing or operating, he inspired others to do their utmost, and skillful and busy as he was, his humanity and thoughtfulness impressed everybody. In the most exciting situations he was calm; in the most difficult, patient and resourceful. Yet, quiet as his methods were, he accomplished much. He was willing to work twenty-four hours a day, or until he broke down, as he did at Siboney with yellow fever. No one ever saw him show irritation even when tempers were frayed because supplies had failed and everything seemed to be going wrong. His low voice, his gentle smile, his serene self possession conquered difficulties. One of the most modest of men, he could not help being heroic in emergencies.

Honors never before conferred upon any army surgeon came to him. He earned the dignity of surgeon general, but never received it. The whole army esteemed him. He had troops of friends, no man could be his enemy. In a long and eventful career a fine character shone through his work, and by his charming personality he was always remembered."

WALTER L. BIERRING.

GIFT TO AMERICAN COLLEGE OF SURGEONS

The Carnegie Corporation has given to the American College of Surgeons \$75,000 to be used for hospital standardization. Four years ago, it made a gift of \$30,000 for the same purpose, making a total of \$105,000, this amount being supplemented by funds of the college.—(Monthly Bulletin.)

NOTES FROM IOWA STATE UNIVERSITY

Dr. Don M. Dickerson, Iowa City

The appended chart shows graphically the number of deaths from the various causes that occurred in the registration area of the United States during 1918.

The figures are taken from "Mortality Statistics, 1918," recently published by the Bureau of Census.

Almost everyone expected that influenza would lead as the greatest single cause of death in that fateful year.

The remainder of the chart will be somewhat a surprise to anyone not familiar with similar tables.

The fact that pneumonia caused almost twice as many deaths as tuberculosis is a surprise.

Infant deaths follow closely after pneumonia.

Tuberculosis comes fourth in the great causes of death.

In that group of contagious diseases whose victims can be counted in thousands instead of hundreds of thousands the one that leads all the rest is whooping cough!

The next greatest killer in this group is bronchitis!

Probably among the one hundred and ten million people in this country, one hundred million had bronchitis during the year so that the case mortality is not high but the aggregate number of deaths from this cause throughout the country is rather startling.

Diphtheria and typhoid came along about as expected.

But look at measles! It caused three and one-half times as many deaths as scarlet fever.

The above data does not include figures from this state as Iowa is not yet included in the "registration area."

Causes of Deaths, 1918
(Registration Area, U. S. A.)

Influenza (234,290)
Pneumonia (222,400)
Infant deaths (193,855)
Under 1 year—all causes
Tuberculosis—(All forms) (121,204)
Whooping Cough (13,728)
Bronchitis (12,760)
Diphtheria (11,183)
Typhoid (10,167)
Measles (8,223)
Meningitis (7,500)
Erysipelas (2,579)
Malaria (2,534)
Scarlet Fever (2,335)
Smallpox (338)

In connection with the address of President Allen at the Des Moines meeting it may be of interest to note the following facts in the "Statistical Bulletin" of the Metropolitan Life Insurance Company.

The data was compiled only for those cities and states where the registration of births and deaths is known to be good.

The facts are as follows:

1. More than five women die from disorders of pregnancy or childbirth out of each thousand births registered. This is equivalent to one maternal death out of every 185 confinements.

2. Forty-five babies out of every thousand total births, or one out of every twenty-two are born dead.

3. Forty babies out of every thousand born alive die before they are one month old.

Contrast this condition of affairs with similar figures among women who receive adequate prenatal and maternity care under skilled direction.

1. Only two women instead of five die out of every thousand confinements.

2. Only twelve babies instead of forty-five are still born in every thousand births.

3. Only ten babies instead of forty per thousand born alive, die under one month of age.

Such figures as these supplementing the splendid address of President Allen should be given serious thought by every physician and intelligent citizen of the state.

The Indiana State Board of Health recently addressed a folder to the mothers of the state containing some very trite material. The "Baby's Rules for the Mother" were as follows:

1. Bathe me every day. Oftener in hot weather. Test the heat of the water with your elbow. Pat me dry. Then I'll laugh and crow for you.

2. Keep me in a cool, clean, airy place. Dirt and heat make me ill and cross. Out of doors let me watch the sunlight and shadows dance. But shield my eyes from a direct light. It hurts them.

3. Let me sleep sixteen to twenty-two hours out of twenty-four. I detest waking to show auntie the color of my eyes. When I sleep, I grow. That is my business.

4. Feed me regularly at three to four hour intervals. My stomach needs to rest between times. If you give me too much I'll spit it up. I like mother's milk the best of any.

5. Let me kick and cry sometimes. I must get some exercise. Play gently with me, but do not toss me high. I may fall and break my bones.

6. I love to cuddle in your arms, but please, mother, rocking me to sleep makes me dizzy. Turn me over often. I am vain about the shape of my head.

7. Let me hear soft tones of beautiful music. They soothe me. Sudden, loud or harsh noises get on my nerves. I love to hear you sing.

8. Support my head and back while I am tiny. Please let me take my own time in learning to walk. I want my body to grow straight and strong.

9. Do not expect me to talk too soon. It takes quite a while to learn your foreign language. I can understand my own much better and I must think and think before I speak.

10. Protect me from persons who want to kiss my mouth. I am not strong enough to fight all their germs. Besides, it isn't done in the better babies' families.

Keep all these rules for me and some day I may do something for you.

Yours for health and happiness.

BABY.

News Items

The recent samples of the city water at Cedar Rapids did not meet the standard for purity that is laid down by the United States Public Health Service for water supplied to interstate carriers. As a result placards were posted in the station warning the people that the water was unfit to drink.

The State Board of Health on being notified of this action began a study of the condition of the water at Cedar Rapids. Mr. Jack J. Hinman, Jr., of the state epidemiologist's office went to Cedar Rapids on May 17th to look over the situation very carefully. The Mayor of Cedar Rapids and others responsible for the purity of the water showed Mr. Hinman every courtesy and by their cooperation and changes which he recommended, the Cedar Rapids water supply was given a "provisional permit."

A complete study and report is now under way and it is expected that the Cedar Rapids supply will meet the government standard on future tests.

The United States Public Health Service is making a very systematic survey of the water supplied to interstate carriers at all points in this state.

The state department of health with its laboratories at Iowa City are authorized to examine water supplies in this state at a fee of one dollar per sample. This service should be taken advantage of by all cities and villages for the protection and health of the citizens and supplies that come under federal jurisdiction should be examined frequently.

In recent years several high courts have held that a corporation or municipality furnishing a water supply is responsible for the quality as well as the quantity of the water. In a number of instances judgments for large sums for personal damage have been handed down to the persons or their heirs, who contracted typhoid fever from drinking impure water.

Dr. C. R. Thomas of the Student Health Service spent a week in Detroit visiting personal and professional friends.

President Jessup made a trip to New Orleans to attend the meeting of the American Medical Association. The splendid address he read there has been recently published in the Journal of the American Medical Association. It puts forth in a very clear and concise manner the medical ideas and ideals of this state and is an address of which all medical men in the state may be proud.

Dr. Wyndon Davis, who graduated from the Medical School of this University this spring, died May 16th from scarlet fever at Harpers Hospital, Detroit, Michigan. Dr. Davis' home was in Libertyville, Iowa. He entered the university after graduating from Parsons College at Fairfield. Shortly after graduation this spring he married Miss Agnes McEwen of Orange City. After graduation he went to Detroit to spend his internship at Harpers Hospital

and it was while on duty that he contracted the disease that brought about his death. His brother, Dr. A. C. Davis of the University Hospital, went to Detroit and was with him when he died.

Building operations have been begun on the State Psychopathic Hospital in connection with the State University at Iowa City, but with the present outlook in labor and material it is very doubtful if the building will be ready for occupancy before the end of the present calendar year, and possibly not until later. It has therefore been considered advisable to start a temporary service to care for as many cases as possible pending the completion of the hospital building. Quarters have been assigned in the University Hospital Annex and after alterations this space will be available for three or four cases of each sex. Because of the character of these quarters and the limitations in space it will be impossible to accept cases requiring long residential treatment and admissions must be restricted to those cases which require observation to establish a diagnosis and to permit advice concerning proper disposition.

It is expected that these quarters will be ready for occupancy some time between June 15 and July 1, and at the same time an out patient service in psychiatry will be established at the University Hospital.

Because of the restrictions of the temporary service it will be necessary that applications for admission be accepted by the director before the case is sent to Iowa City. Patients will be accepted into this service in any of the following four classes: committed public, committed private, voluntary public and voluntary private.

SAMUEL T. ORTON, M.D.,
Medical Director, State Psychopathic Hosp

LABORATORY NOTES

The Collection of Specimens of Blood for the Wassermann Test for Syphilis

Edited by Lieut.-Col. W. S. Conkling, M.C.

A concise statement of the directions for the collection of specimens of blood for the Wassermann test are given on the back of the "data card" which is enclosed in every diagnostic outfit. In order that the reasons for the several directions may be better understood, it has been deemed advisable to give a rather detailed explanation of these directions. In the following paragraphs, the portion set in black face type represents the directions as given on the card.

1. **Directions for collecting blood.** The Wassermann test may be made on either blood serum or spinal fluid. The usual test is made on blood serum. In case of suspected syphilis of the nervous system, the spinal fluid should also always be tested. Directions for the collection of spinal fluid will be given later.

2. **Blood for the Wassermann test should be**

drawn shortly before meals. The reason for drawing blood shortly before meals is because for several hours after meals the blood contains a certain amount of chyle—fatty material ingested with the food. This causes the blood serum to be cloudy and accordingly interferes with the making of the test.

3. **Specimens should not be taken within 24 hours after the ingestion of alcoholic beverages, or the administration of anaesthetics.** Alcoholic beverages and agents ordinarily employed in producing general anaesthesia have a tendency to interfere with the reaction necessary for a proper test.

4. **Blood is readily obtained from the median basilic vein at the elbow.** At times the veins at the elbow joint are so small or so deeply set in subcutaneous fatty tissue that the securing of a proper specimen of blood is rather difficult. Ordinarily, however, the veins of the elbow joint stand out rather prominently.

5. **Clean the surface of the skin over the vein thoroughly, using soap and water followed by alcohol.** If tincture of iodine is used to disinfect the skin, the iodine color should be removed with alcohol since the color tends to interfere with the finding of the vein.

6. **Tie a bandage or tourniquet around the arm just above the biceps and below the deltoid muscles tight enough to constrict the venous circulation and yet not stop the pulse below.**

7. **Remove the sterile needle from the cork taking hold of the grip. Do not touch either end of the needle. Lay the cork down small end up.** The test tube in which the needle is found together with the needle, was sterilized at the laboratory. Great care should be taken to take hold of the needle only at the knob or grip near the middle of the needle. The sharp end must not be contaminated because of the danger of contaminating the blood. Since the growth of bacteria in the blood serum will cause it to become cloudy and therefore to interfere with the Wassermann test, care should be taken that the end of the cork which is inserted into the tube does not come in contact with any object while the blood is being collected.

8. **The needle may be passed through the skin and outer wall of the vein, usually with one steady thrust.** When the point of the needle has entered the vein, blood will flow at the distal end of the needle. This is the only advantage which the small needle has over the Keidel tube, which consists of a needle attached to a tube containing a vacuum. The needle is inserted into the vein, the point of the tube broken and blood withdrawn rather rapidly by means of the suction action of the vacuum. If by chance the point of the needle is not in the vein, when the tube is broken, the vacuum may have been destroyed and the blood will be obliged to flow against pressure in the tube. Blood may also be collected by means of a good hypodermic syringe.

9. **Let the blood flow into the tube.**

10. **After having secured a sufficient amount of**

blood (5 cc or tube three-fourths full are necessary), **release the constricting band, withdraw the needle and apply a small dressing.** It is advisable to release the constricting band before withdrawing the needle, otherwise the pressure within the veins will cause the blood to pass out of the opening made by the needle and accumulated in the subcutaneous tissue, produce an hematoma.

The size of the opening makes it desirable to have it covered by a dressing. A cotton-collodion dressing is a satisfactory one.

12. **Slant the tube and let it remain at room temperature for one-half hour.** The reason for this is that it is only the serum portion of the blood that is used for making the test. It is therefore necessary to allow it to stand for half an hour so that a firm clot may be formed. The tube is slanted so that the serum may collect on one side.

Containers for the Wassermann test may be obtained from the Venereal Disease Laboratories, State Board of Health, University of Iowa, Iowa City, Iowa. No charge is made for the containers nor for the test. Arrangements have also been made in connection with the various "Venereal Disease Clinics" in the larger cities for the taking of blood specimens for the Wassermann test.

Henry Albert, M.D.

ANNUAL ASSEMBLY, TRI-STATE DISTRICT MEDICAL ASSOCIATION

Waterloo, Iowa, October 4, 5, 6, and 7

Headquarters, Russell Lamson Hotel

October 4, 1920

8:00 to 10:00 a. m. Registration for doctors and ladies at First Congregational Church, corner North Fourth and South Streets.

10:00 to 12:00 a. m. Address and diagnostic clinic (Pediatrics). Dr. Julius P. Sedgwick, Professor of Pediatrics, University of Minnesota, Medical School, Minneapolis, Minnesota. Dr. Frederick C. Rodda, Assistant Professor of Pediatrics, University of Minnesota, Medical School, Minneapolis, Minnesota.

1:00 to 3:00 p. m. Diagnostic Clinic (Medical). Dr. William Engelbach, Professor of Medicine, St. Louis University, School of Medicine, St. Louis, Missouri. Dr. Charles L. Mix, Professor of Medicine, Head of the Department of Medicine, Loyola University Medical School, Chicago, Illinois. Dr. Leonard G. Rowntree, Professor of Medicine, University of Minnesota, Medical School, Minneapolis, Minnesota.

3:00 to 3:30 p. m. Intermission.

3:30 p. m. Diagnostic Clinic (Surgical). Dr. John F. Binnie, Kansas City, Missouri. Dr. Robert B. Osgood, Boston, Massachusetts.

7:00 p. m. Address of Welcome—Hon. Nelson Frisbie, Mayor of Waterloo. Response to Address of Welcome. Dr. Edwin P. Sloan, Bloomington, Illinois.

7:45 p. m. Public Address for the Physicians and Citizens of Waterloo. Surgeon-General Hugh S. Cumming, United States Public Health Service, Washington, D. C.

9:00 p. m. Reception and Entertainment for doctors, ladies and guests.

Second Day, October 5, 1920

7:00 a. m. Diagnostic Clinic (Surgical). Dr. Robert T. Morris, Emeritus Professor of Surgery, New York, Post Graduate Medical School, New York, N. Y. Diagnostic Clinic (Medical). Dr. Alfred Stengel, Professor of Medicine, University of Pennsylvania, School of Medicine, Philadelphia, Pennsylvania.

9:00 a. m. Malnutrition in School Children. Occurrence, significance, treatment. Dr. Fred Moore, Des Moines, Iowa. Discussion led by Dr. William J. Herrick, Ottumwa, Iowa.

9:20 a. m. Report of a case of Cardiospasm with Enormous Dilatation of the Oesophagus. Dr. Thomas J. Snodgrass, Janesville, Wisconsin. Discussion led by Dr. John F. Pember, Janesville, Wisconsin.

9:40 a. m. Treatment of Inoperable Cyst Adenoma of Ovary by Laparotomy and Radium. Dr. Paul Markley, Rockford, Illinois. Discussion led by Dr. Charles W. Hanford, Chicago, Illinois.

10:00 a. m. Phlebitis in the Puerperium. (Report of a case). Dr. Edward T. Edgerly, Ottumwa, Iowa. Discussion led by Dr. Edward S. Murphy, Dixon, Illinois.

10:20 a. m. Pneumococcus Peritonitis. Dr. Victor F. Marshall, Appleton, Wisconsin. Discussion led by Dr. David J. Twohig, Fond Du Lac, Wisconsin.

10:40 a. m. Intermission.

11:10 a. m. Principles of Drainage in Empyema. Dr. John F. Binnie, Kansas City, Missouri.

Afternoon Session

1:00 p. m. President's Address. Dr. George V. I. Brown, Milwaukee, Wisconsin.

1:20 p. m. The Teeth in Their Relation to Systemic Disease or Infection from the Standpoint of Radiologist. Dr. Fred S. O'Hara, Springfield, Illinois. Discussion led by Dr. Arthur E. Rodgers, Bloomington, Illinois. Dr. Arthur W. Erskine, Cedar Rapids, Iowa.

1:40 p. m. Intestinal Sand, with Report of a Case of 20 Years Standing. Dr. Frank M. Fuller, Keokuk, Iowa. Discussion led by Dr. Tom B. Throckmorton, Des Moines, Iowa.

2:00 p. m. The Outlook for the Fourth Area of Surgery. Dr. Robert T. Morris, Emeritus Professor of Surgery, New York Post Graduate Medical School, New York, N. Y.

3:00 p. m. Diabetes Insipidus and the Regulation of Water Balance. Dr. Leonard G. Rowntree, Professor of Medicine, University of Minnesota Medical School, Minneapolis, Minnesota.

3:40 p. m. Tuberculosis among our Soldiers as Manifested by Autopsy Findings. Dr. Daniel J.

Glomset, Des Moines, Iowa. Discussion led by Dr. John W. Shuman, Sioux City, Iowa.

4:00 p. m. Intermission.

4:30 p. m. Subject announced later. Dr. Alfred Stengel, Professor of Medicine, University of Pennsylvania Medical School, Philadelphia, Pennsylvania.

Evening Session

7:00 p. m. Roentgenologic Aspect of Pulmonary Metastasis. Dr. Russell D. Carman, Professor of Roentgenology, University of Minnesota Graduate School of Medicine, Rochester, Minnesota.

7:40 p. m. Encephalitis Lethargica. Dr. Charles L. Mix, Professor of Medicine, Head of the Department of Medicine, Loyola University Medical School, Chicago, Illinois.

8:20 p. m. Address. Surgeon-General Hugh S. Cumming, United States Public Health Service, Washington, D. C. General discussion on Public Health. Dr. Cornelius A. Harper, Secretary State Board of Health, Madison, Wisconsin. Dr. Guilford H. Sumner, Executive Officer, Iowa State Board of Health, Des Moines, Iowa. Dr. Clarence St. Clair, Drake, Director, Department of Public Health, Springfield, Illinois.

Note: Sometime during the day on October 5th, Dr. Edwin Henes, Jr., of Milwaukee, Wisconsin, will read a paper on "The Surgical Treatment of Typhoid Carriers."

Third Day, October 6, 1920

7:00 a. m. Diagnostic Clinic (Medical). Dr. Harlow Brooks, Professor of Clinical Medicine, University of Bellevue Hospital, Medical School, New York, N. Y. Diagnostic Clinic (Surgical). Dr. George W. Crile, Professor of Surgery, Western Reserve University, School of Medicine, Cleveland, Ohio.

9:00 a. m. Megalocolon or Hirschsprung's Disease. Dr. Thomas W. Nuzum, Janesville, Wisconsin. Discussion led by Dr. John M. Dodd, Ashland, Wisconsin.

9:20 a. m. Tumors of the Breast. Dr. William Jepson, Sioux City, Iowa. Discussion led by Dr. William J. Egloff, Mason City, Iowa.

9:40 a. m. Mental Reconstruction. Dr. Ralph T. Hinton, Supt. Illinois State Hospital, Elgin, Illinois. Discussion led by Dr. George Mitchell, Peoria, Illinois. Dr. Frank I. Drake, Supt. Wisconsin State Hospital, Mendota, Wisconsin.

10:00 a. m. Results in the Open Treatment of Fractures. Dr. Joseph F. Smith and Dr. Merrit L. Jones, Wausau, Wisconsin. Discussion led by Dr. Wilson Cunningham, Platteville, Wisconsin.

10:20 a. m. Subsequent Treatment in Casualty Cases. Dr. Don W. Deal, Springfield, Illinois. Discussion led by Dr. Roland Hazen, Paris, Illinois.

10:40 a. m. Intermission.

11:10 a. m. Standardization of Methods of Treatment in Orthopaedic Surgery and in Industrial Surgery of the Extremities and Spinal Column. Dr. Robert B. Osgood, Boston, Massachusetts.

Afternoon Session

1:00 p. m. The Significance of Globoid Bodies and Their Cultivation by Newer Bacteriological Methods. Dr. William Thalheimer, Milwaukee, Wisconsin. Discussion led by Dr. John J. Seelman, Milwaukee, Wisconsin.

1:20 p. m. Subject announced later. Dr. David Fairchild, Jr., Clinton, Iowa. Discussion led by Dr. Alanson M. Pond, President Elect Iowa State Medical Society, Dubuque, Iowa.

1:40 a. m. The Physician as a Business Man. Dr. Charles L. Best, Freeport, Illinois. Discussion led by Dr. William E. Fairfield, Green Bay, Wisconsin.

2:00 p. m. The Newer Conceptions of the Relation of the Liver to the Problems of Abdominal Surgery. Dr. George W. Crile, Professor of Surgery, Western Reserve University School of Medicine, Cleveland, Ohio.

3:00 p. m. Cancer of Cervix and Rectum. (A Plea for less radical surgery). Dr. Donald Macrea, President of Iowa State Medical Society, Council Bluffs, Iowa. Discussion led by Dr. Peter A. Bendixen, Davenport, Iowa.

3:20 p. m. Subject announced later. Dr. Horace M. Brown, Milwaukee, Wisconsin. Discussion open.

3:40 p. m. Basal Metabolism. Dr. Joseph S. Evans, Professor of Clinical Medicine, State University School of Medicine, Madison, Wisconsin. Discussion led by Dr. Alfred W. Gray, Milwaukee, Wisconsin.

4:00 p. m. Intermission.

4:30 p. m. The Lessons of War Service for the Internist. Dr. Harlow Brooks, Professor Clinical Medicine, University of Bellevue Hospital, Medical School, New York, N. Y.

Evening Session

7:00 p. m. Treatment of Acute and Chronic Fractured Os Calcis. Dr. Claude R. G. Forrester, Professor of Clinical Surgery, Chicago College of Medicine and Surgery, Chicago, Illinois. Discussion led by Dr. Robert A. Hanna, Peoria, Illinois.

7:20 p. m. Removal of the Adherent Placenta in Abortions. Dr. Charles E. Rutli, Des Moines, Iowa. Discussion led by Dr. Clifford U. Collins, Peoria, Illinois.

7:40 p. m. The Choice of a Cataract Operation. Dr. Harry W. Woodruff, Professor of Ophthalmology, Chicago Eye, Ear, Nose and Throat College, Joliet, Illinois. Discussion led by Dr. Alonzo B. Middleton, Pontiac, Illinois. Dr. Arthur L. Hager, Springfield, Illinois.

8:00 p. m. Disorders of the Pituitary Gland. Dr. William Engelbach, Professor of Medicine, St. Louis University School of Medicine, St. Louis, Missouri.

8:45 p. m. Cancer of the Large Bowel. Dr. Carl B. Davis, Assistant Professor of Surgery, Rush Medical College, Chicago, Illinois.

9:30 p. m. Stereopticon Clinic. Tumor Formation in the Mineral, Vegetable and Animal Kingdoms. Commander William Seaman Bainbridge,

M.C., U. S. N. R. F., Acting Operating Surgeon Brooklyn Naval Hospital, Consulting Surgeon Third Naval District, New York, N. Y.

Smoker

Fourth Day, October 7, 1920

7:00 a. m. Diagnostic Clinic (Medical). Dr. Lewellys F. Barker, Professor of Medicine, Johns Hopkins University, Medical Department, Baltimore, Maryland. Diagnostic Clinic (Surgical). Dr. Harvey Cushing, Professor of Surgery, Medical School of Harvard University, Boston, Massachusetts.

9:00 a. m. Painful Shoulder. Mechanics, diagnoses, and special methods of treatment. Dr. Paul B. Magnuson, Chicago, Illinois. Discussion led by Dr. Walter W. Greaves, La Salle, Illinois.

9:20 a. m. Focal Infection with Special Reference to Chronic Arthritis and End Results. Dr. Walter L. Bierring, Des Moines, Iowa. Discussion led by Dr. William H. Rendelman, Davenport, Iowa.

9:40 a. m. The Medical Profession Safeguarding Americanism. Dr. Charles J. Whalen, Editor Illinois State Medical Journal, Chicago, Illinois.

10:00 a. m. Variations in Build of Body in Relation to Disease. Dr. Charles R. Bardeen, Dean and Professor of Anatomy, University of Wisconsin, School of Medicine, President, Wisconsin State Medical Society, Madison, Wisconsin. Discussion led by Dr. Otto A. Feidler, Sheboygan, Wisconsin.

10:20 a. m. Intermission.

10:50 a. m. The Physician as a Citizen. Dr. Charles E. Humiston, Associate Professor of Clinical Surgery, University of Illinois College of Medicine, President Elect of the Illinois State Medical Society, Chicago, Illinois. Discussion led by Dr. Edward Fiegenbaum, Edwardsville, Illinois.

11:10 a. m. The Human Breast: A Plea for Well-directed Treatment Based on a More Accurate Diagnosis. Commander William Seaman Bainbridge, M.C., U. S. N. R. F., Acting Operating Surgeon Brooklyn Naval Hospital, Consulting Surgeon Third Naval District, New York, N. Y.

Afternoon Session

1:00 p. m. Some Surgical Cases with a Lesson. Dr. Edward Evans, La Crosse, Wisconsin. Discussion led by Dr. John L. Yates, Professor of Clinical Surgery, Marquette University, School of Medicine, Milwaukee, Wisconsin.

1:20 p. m. The Clinical Symptoms and Signs of Exophthalmic Goitre. Dr. Campbell P. Howard, Professor of Medicine, State University of Iowa College of Medicine, Iowa City, Iowa. Discussion led by Dr. John T. Strawn, Des Moines, Iowa.

1:40 p. m. Group Diagnosis and Therapy. Dr. Lewellys F. Barker, Professor of Medicine, Johns Hopkins University Medical Department, Baltimore, Maryland.

2:40 p. m. Subject announced later. Dr. Hubert Work, President Elect American Medical Association, Pueblo, Colorado.

3:40 p. m. Intermission.

4:00 p. m. The Special Field of Neurological Surgery. Dr. Harvey Cushing, Professor of Surgery, Medical School of Harvard University, Boston, Massachusetts.

Banquet, 6:30 p. m.

Addresses

Dr. Hubert Work, President Elect American Medical Association, Pueblo, Colorado.

Eminent men of the profession who are guests of the Association and other distinguished citizens of the United States.

Presidents of the State Societies:

Wisconsin—Dr. Charles R. Bardeen, Madison.

Illinois—Dr. William F. Grinstead, Cairo.

Iowa—Dr. Donald Macrae, Council Bluffs.

Program Committee:

JOHN F. PEMBER, Janesville, Wis.

JOHN F. HERRICK, Ottumwa, Iowa.

EDWIN P. SLOAN, Bloomington, Ill.

(Signed),

Managing Director,

GEORGE V. I. BROWN, Milwaukee, Wis.,

Managing Director,

WILLIAM B. PECK, Freeport, Ill.

Secretary,

DOMER G. SMITH, Freeport, Ill.

The Physicians of Iowa are cordially invited to attend the assembly and participate in the program.

SIXTH INTERNATIONAL SANITARY CONFERENCE OF THE AMERICAN REPUBLICS

To Be Held in Montevideo, Uruguay, December 12-20, 1920

International Sanitary Bureau of the American Republics

Washington, D. C., May 10, 1920.

In compliance with the resolution adopted at the Fifth International Sanitary Conference, the Sixth International Sanitary Conference of the American Republics will be held in Montevideo, Uruguay, December 12-20, 1920, under the presidency of Dr. E. Fernandez Espiro and the auspices of the government of Uruguay.

A number of important sanitary subjects will be discussed at this conference, and it is expected that all the nations interested will be duly represented.

Program of the Sixth International Sanitary Conference of the American Republics to be Held in the City of Montevideo from December 12 to 20, 1920

Each delegation shall send in a printed memoir, accompanied by an abstract, to the Secretary of the conference fifteen days before its opening. The copies so remitted shall be distributed in due time among the delegates, in order that they may inform themselves of the contents before the opening of the sessions.

This memoir shall comprise the following points:

1. Sanitary laws, ordinances, and regulations imposed since the 5th Conference.

2. Adoption of the resolutions passed by the preceding conferences.

3. Enumeration of the contagious diseases which may have prevailed since the 5th Conference (in particular influenza), measures adopted to avoid its propagation, number of cases and deaths.

4. Considerations relative to the outbreak and development of bubonic plague; methods employed to combat it; their results.

5. Frequency of epidemic cerebrospinal meningitis, transmissible anterior poliomyelitis, and lethargic encephalitis.

6. Actual status of the combat against tuberculosis, yellow fever, malaria, trachoma, and ankylostomiasis.

7. Data relative to leprosy and the measures put in practice to prevent its diffusion.

8. Actual status of the combat against avariosis (venereal diseases).

9. Organization and operation of the service of disinfection. Work carried out.

10. Movement of population and rate of mortality during the last five-year period.

11. Water supply and sewerage service. Their extent.

12. Application of different systems of paving.

13. Organization and operation of the service of maritime sanitation.

14. Work of the health commissions of each one of the American Republics.

15. Data with regard to the operation of the Sanitary Information Center of Montevideo.*

Rules for Sessions

1. During the sessions of the conference only abstracts of the memoirs presented by the delegates shall be read. In this reading, as for voting, the alphabetical order of the nations represented in the act shall be observed.

2. Not more than fifteen minutes shall be employed in the reading of the abstracts.

3. Having been once read they shall be submitted to the consideration of the conference. Delegates who desire to take part in the discussion shall be limited to five minutes as a maximum and shall speak only twice.

Observations made by the authors of the abstracts having been noted the debate shall be held to be closed unless the conference rule otherwise.

4. Observations formulated by the delegates in the course of the discussion shall be presented in writing to the secretary before the termination of the session.

5. Every motion or suggestion shall be presented in writing, and if supported by two delegates, shall be referred to a committee and shall be treated of

*This point will be treated by Legation of Uruguay.

over the tables only if so decided by a two-thirds vote.

6. The committees on information shall expedite the transaction of business and shall advise as they think fit, in the form of conclusions.

7. The decisions of these committees shall be discussed briefly and the delegates may, in this event, speak only once and only for five minutes.

As requested in the communication of Dr. Hugh S. Cumming, provisional chairman of the International Sanitary Bureau, the director general of the Pan American Union has addressed a letter to the diplomatic representatives of all the countries interested in the conference transmitting a copy of the call and the provisional program, which has also been given to the press, and will be printed in the bulletin of the Pan American Union.

SOCIETY PROCEEDINGS

Iowa and Illinois Central District Medical Ass'n

The annual meeting of the Iowa and Illinois Central District Medical Association was held July 8 at Forest Park, Davenport. The following officers were elected: President, Dr. G. F. Harkness, Davenport; vice-president, Dr. J. W. Seids, Moline; secretary, Dr. W. D. Chapman, Silvis; treasurer, Dr. W. D. Snively, Rock Island; censors, Dr. Louis Ostrom, Rock Island, and Dr. Herbert Decker, Davenport.

The first annual meeting of the Eighty-ninth Division Medical Association will be held in Kansas City, Mo., October 4, 1920.

Surgical and medical clinics have been arranged, business meeting and banquet with prominent speakers for the evening.

MEDICAL NEWS

Dr. Harry Lindsay, who has been first assistant physician at the state hospital at Independence, and who since the death of Dr. Crumbacker, the late superintendent, has been in charge of the hospital, has accepted a position in the Ohio State Hospital for the insane. Dr. Lindsay expects to leave at an early date for his new position. He has been at the state hospital at Independence for thirty years, beginning as an attendant, then as a druggist, and at the same time studying medicine, until he reached a high position in the institution. The state board of control has named Dr. Robert Stewart, assistant superintendent of the Mt. Pleasant hospital, as head of the hospital at Independence, and he has already taken charge of that institution.

The Story City sanitarium and Old Peoples Home, which institution was built a few years ago by funds largely raised from people of the Lutheran faith, has been offered to and accepted by the Norwegian Lutheran Church of this part of the country and will be operated under the direction of that institution.

The property is to be turned over just as soon as the stipulations named in the offer have been complied with.

Dr. B. Singh Jain left Iowa City July 2. He is planning to sail for England, and thence go to India. He thus severs his connection with S. U. I. He has been an intern in the department of pediatrics, at S. U. I., and won his M.D. by splendid work, during his course in the College of Medicine. He has lived in Iowa City five years. Dr. Jain came from Gohana, India, and in his native land he will devote his energies and talents to curing diseases of children—a great field of endeavor there awaiting him.

PERSONAL NOTES

Major W. S. Wells, who has been spending his furlough at his home here since his return from Germany, left recently for San Francisco. When he took his medical course at Harvard he specialized in cardiography and he has received orders from Washington to set up and operate a string galvanometer and do electrocardiograph work in the Letterman Hospital at the Presidio. He stopped off at Minneapolis to meet a medical officer who was with him through the Argonne Forest campaign as a member of the 60th U. S. Infantry.

Dr. and Mrs. C. P. Howard have left for the East, whence they will sail next week for England, where Mrs. Howard's kinsfolk are among the royalty, as she is a descendant, it will be recalled, by readers of the Daily Press, of Lord Strathcona, famed in the history of Canada, where once he held high power. Dr. and Mrs. Howard were asked to bring some sugar with them, if possible, as it is nearly impossible to get sugar in the British Isles, where they are to spend the summer. Accordingly, the Iowa university savant took along a sack containing fifteen lbs. of the coveted luxury. His people write that the British government is still rationing food staples, to rich and poor, alike, and the saccharine substance is scarcely obtainable, "for love or money."—Iowa City Daily Press.

Dr. Jeanette Throckmorton, who attended the world congress on public health, recently held in Brussels, was made a vice-president of the world organization. She was one of the few representatives from America in attendance. Dr. Throckmorton has returned to her work here with the state and federal health bureau. While abroad she spoke before the world congress on "Fashions and Public Health" and made addresses in London and Paris. —Des Moines Daily News.

Dr. C. M. Wallace of Macksburg has formed a partnership with Dr. Pinall of Winterset.

Dr. E. J. Rock who has been associated with Dr. Dean and Dr. Boiler of Iowa City will locate in Davenport for the practice of medicine which will be limited to diseases of the eye, ear, nose and throat.

(Continued on Advertising Page xviii)



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PERSONAL NOTES

(Continued from Page 330)

Dr. Leonard A. West has located in Waverly for the practice of medicine.

Dr. C. B. Tice formerly of Sioux Rapids after a year of post graduate study has located in Storm Lake.

Dr. Charles D. Martin has located in Davenport. He is a graduate of Marquette University, Milwaukee.

Dr. A. H. Bishop, formerly of West Bend, has moved to Elberon.

Dr. Wilson of the firm of Drs. Hovenden and Wilson, has withdrawn and Dr. L. W. Loring has taken his place.

Dr. Granan of New Athens, Illinois, has purchased Dr. E. L. Wurtzin's practice at Lakota.

OBITUARY

Dr. F. S. Johnson of Sioux City died at his home near Sioux City, July 6, 1920.

Dr. Johnson was born at Wyoming, Iowa, March 12, 1854. After attending the common schools, he went to the University of Iowa, where he studied medicine. After his graduation there, he attended Johns Hopkins. Later he took a two years' post graduate course at Harvard.

Dr. Johnson's first practice was at Fulton, Illinois. From there he went to Odebolt, where he practiced until he came to Sioux City to join Dr. J. N. Warren in medical practice. He was associated with Dr. Warren until his health began to fail. Then he removed to his farm near Climbing Hill.

Dr. E. T. Lawler, formerly of Cedar Rapids, died at Los Angeles Monday evening, following a lingering illness. Edward Thomas Lawler was born in Cedar Rapids, November 12, 1878. He was a graduate of Cedar Rapids high school and in 1900 received his degree as Doctor of Medicine at Rush Medical College in Chicago. For several years he practiced medicine and surgery in Cedar Rapids. In 1901 and 1902 he served as city physician. Later he took a post graduate course in surgery in London.

January 17, 1905, he married Laura Greene, daughter of Thomas Greene of West Union. In 1910 they moved to Amarillo, Texas, where he built up a large practice and became the leading physician and surgeon of the town. During the epidemic of influenza last winter he contracted the disease and never fully recovered from it.

About five weeks ago he went to California hoping to regain his health, but rapidly became worse.

Dr. J. H. Bowers died at his home in Riceville Saturday evening, July 10th, after an illness of about a month.

Dr. Sebastian C. Hatton, seventy-one years of age, died at the Edmunson Hospital in Council Bluffs, July 5th. Dr. Hatton had practiced medicine at Riverton, Iowa, since 1878.

Dr. H. E. Harlow of Zearing died at Rochester, July 8, 1920. Dr. Harlow graduated from the Medical School of the Iowa State University in the class of 1914.

In August, 1915, he married Miss Velma Marshall of Iowa City. After graduation Dr. Harlow located in Zearing.

Dr. Dallas L. Scarborough of Grand Junction died at the University Hospital, Iowa City, July 11, 1920. Dr. Scarborough several months ago sustained a fracture of his leg, on account of delayed union he was taken to Iowa City for treatment, he died from nephritis.

He was born in 1844, graduated from the College of Physicians of Keokuk in 1871 and located in Grand Junction. Dr. H. V. Scarborough, superintendent of Oakdale Sanitarium is a son of the deceased.

Dr. John Chalmers DaCosta, Jr., of Philadelphia, died April 26 from a fracture of the skull sustained in an automobile accident. He was forty-six years of age and a graduate of Jefferson Medical College in 1893. He was well known as a specialist in internal medicine, a teacher and an author. At the time of his death he was associate professor of medicine in Jefferson Medical College.

BOOK REVIEWS

DISEASE OF THE CHEST AND THE PRINCIPLES OF PHYSICAL DIAGNOSIS

By George William Norris, A.B., M.D. and Henry R. Landis, A.B., M.D., Assistant Professors of Medicine in the University of Pennsylvania. With a Chapter on the Electrocardiograph in Heart Disease. By Edward B. Krumblaar, Ph.D., M.D., Assistant Professor of Research Medicine in the University of Pennsylvania. Second Revised Edition. W. B. Saunders Company, 1920.

The authors of this book announce that the first edition of this book having been exhausted in two years encouraged them to prepare a second edition, and has given an opportunity to revise some parts and to add certain conditions previously omitted.

The title of the book suggests its contents. Eight hundred and forty-four pages relating to diseases of the chest by teachers of such wide distinction takes from us the necessity of reviewing in detail the subjects treated.

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THE RELATIONSHIP OF FRACTURES TO MALPRACTICE SUITS*

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Since the organization of the medical defense of the Iowa State Medical Society there have been brought in Iowa against members of the Society 175 cases in the state and federal courts involving claims aggregating \$1,774,000. These cases embrace 159 different medical or surgical situations, of which 124 involve the practice of surgery, and out of the 124 surgical cases 75, or slightly more than 60 per cent were fracture cases in which were claims aggregating \$885,000. Not only are fracture cases relatively more numerous than all other cases but they are relatively more dangerous, as shown by the fact that all judgments obtained against members of the Society have been based on negligence or unskillfulness in the diagnosis or treatment of fractures.

As compared with all surgical cases, fracture cases are relatively few.

These figures demonstrate that the surgeon dealing with a fracture is incurring a far greater risk of exposure to the annoyance and expense of a damage suit than in dealing with other lines of surgery. Why is this?

The standard by which the law tests the skill and care of the surgeon in the diagnosis and treatment of fractures is the same standard applied to him in the diagnosis and treatment of all other phases of the healing art. This test is an arbitrary and artificial one but is just, and is expressed by the courts in substantially the following language:

A physician and surgeon is required to exercise that degree of knowledge, skill and care ordinarily possessed and exercised at the particular time by the average of the members of his profession in good standing in similar localities.

The law also exacts that a physician and surgeon shall follow a practice or method of treat-

ment approved by the consensus of opinion in his school of medicine. If he experiments by departing from approved practice or methods he does so at his peril.

Broadly speaking, the foregoing are the only positive rules of law applied in damage cases, and within the limits of these rules of law the case is governed entirely by professional standards.

For instance, there is no law requiring a physician and surgeon to use any particular medicine, to apply in the diagnosis and treatment of diseases of the human body any particular curative agents, any particular instruments, provided the agents and instruments used are approved by the consensus of opinion of the profession.

The relatively large number of malpractice cases based upon the diagnosis and treatment of fractures cannot, therefore, be accounted for by the attitude of the courts nor the rules of law applicable to such cases. In my judgment there are, however, well defined reasons for this preponderance of fracture cases in our courts.

First. The treatment of fractures is generally undertaken under less favorable conditions than other lines of surgery. In practically all other surgical cases which involve any risk to the patient, the patient is treated in a hospital and the surgeon has the advantage of trained nurses to see that his instructions are obeyed by the patient, and the patient is more accessible for frequent observation. Without claiming to be accurate, I should say that in more than 75 per cent of the fracture cases which have been involved in litigation defended by the Society, the patients were treated at home, with members of the family or other untrained attendants, and without any of the advantages for effective work which the surgeon enjoys in a well equipped hospital.

Second. The result obtained in the treatment of a fracture depends more upon the conduct of the patient than in most other surgical cases, and the conduct of the patient, in the particulars which contribute to a bad result, is less subject to the surgeon's control.

Third. A bad result in a fracture case is al-

*Presented at the Sixty-Ninth Annual Session, Iowa State Medical Society, May 12, 13, 14, 1920, Des Moines, Iowa.

ways obvious to the patient and to his friends, and the patient usually has a friend or acquaintance who suffered a fracture, apparently no more difficult than his own, who had a better result, and he naturally attributes his own misfortune to a lack of skill and care on the part of his surgeon. In other surgical cases the result is less frequently obvious and the patient has no basis for comparing his result, as a rule, with the results obtained in similar cases.

Fourth. The treatment of other surgical cases is usually involved in more or less mystery to the patient, while the treatment of a fracture, being largely a matter of mechanics where simple appliances, which often appear crude to the layman, are employed, the patient is more likely under the disappointment of a bad result to indulge in a process of reasoning of his own and reach the conclusion that his surgeon was at fault.

Fifth. The surgeon is often too optimistic in his statements to the patient, leading him to believe that he will have a perfect recovery, instead of impressing the patient with the fact that a bad result may occur in the face of the most skillful treatment and that the outcome depends as much, if not more, on the patient than on the surgeon.

Sixth. Undertaking a fracture case without professional assistance and without having the opportunity of applying all of the means at the command of the profession to the accomplishment of a good result. It would be a justifiable rule if surgeons would insist upon professional assistance in all fracture cases and x-ray in all fracture cases where possible. Especially should professional assistance and x-ray and professional nurses be required in cases where a tendency toward a bad result is detected.

It may be presumptuous for me to venture to advise you in your own chosen field but I am going to assume the risk of making a few suggestions based on my observations.

In the first place, the surgeon who undertakes the treatment of a fracture should remember that the path he is treading may lead him to the court room and that the result of his work will be apparent to his patient and his friends probably for many years; that a bad result may be expected in spite of all his skill and care and that the outcome of no other professional undertaking is as open to inspection or as subject to criticism as a bad result in a fracture case. These reflections are conducive to conservative, careful and prudent work.

If possible the patient should be induced to go to a hospital where your best work can be accomplished. In some of the litigated cases the

surgeon has attempted to explain a bad result on the theory that he could have done better work in a hospital, and the patient has countered by saying that he would have been willing to go to a hospital had he appreciated the risks to which he was exposed in accepting treatment at home. It is, therefore, important for the surgeon in every case to emphasize to the patient the advantages which he will have in the hospital and the risks to which he will be exposed elsewhere.

Many times the surgeon pleads the failure of the patient to observe instructions and it has frequently occurred to me that the surgeon was derelict in failing to emphasize to the patient the necessity of obedience to instructions and the consequences of disobedience. It is not uncommon for the surgeon to assume knowledge on the part of the patient which the layman rarely possesses. It will be worth while for the surgeon to consider the psychology of the situation. A little judgment and commonsense will often save a malpractice suit where the highest degree of professional skill and care fails.

The surgeon should not be too optimistic. Time and time again expert witnesses have testified in the trial of malpractice cases that a bad result will sometimes occur under the most skillful treatment. The mind of the patient should be prepared for this possible result.

While it is true that the law does not require the surgeon to use any particular method of treatment nor any particular appliances, splints or bandages, yet the patient will have much more confidence in the application of splints designed for professional use, than in the application of improvised splints or appliances, and wherever possible the crude appliances to which the surgeon is sometimes required to resort should be avoided.

CONSULTATION ALWAYS

The prudent surgeon who anticipates a bad result will always insist upon having consultation. This may be of advantage to the patient and will certainly be of advantage to the surgeon in the event of litigation.

There is one instrumentality which deserves special mention and that is the x-ray. The surgeon who is confronted with a bad result without having used the x-ray will find it difficult to defend himself in a damage suit. The plaintiff can always procure evidence from your professional brethren that the x-ray is helpful in diagnosis, in determining whether the attempted reduction of a fracture has been successful and also in observing from time to time the relative position of the fragments. The advantage of the use of the

x-ray is an imperative reason why the patient should be taken to a hospital if possible. While there is no positive rule of law requiring the surgeon to use the x-ray, yet the jury may well find under the testimony of expert witnesses that the failure to use the x-ray in a given case was a failure to use ordinary care and it should be used wherever possible.

In conclusion I would recommend in view of the intimate relation between fractures and malpractice suits, and the possibility of a bad result under the most skillful treatment that you as surgeons are justified in demanding professional assistance in every case, and the advantages which well equipped hospitals provide, even though the expense and inconvenience to the patient may be thereby increased.

Discussion

Dr. D. S. Fairchild, Clinton—A fact of fundamental importance in the matter of malpractice in all its departments and lines, is the changed relation which now exists between doctors and patients. Fifty years ago and more the family physician sustained the most intimate relations to the family itself, or at least many matters of importance went to the doctor for his advice. Now that is all changed. The relation of the doctor to the patient is more or less of a commercial character, and therefore the patient forgets that intimate relation which was once supposed to exist between doctors and patients, and insists that he shall get the result which he expected to get and which he was assured he would get. In regard to the matter of dealing with these patients, as was mentioned in the paper, a psychological factor has to be taken into account. Last night we were very much entertained by a discourse upon expert hand-shaking as a medical asset, and if the president of the society had given me an opportunity to say something I would have moved an amendment to the effect that the exercise of skill and judgment was of equal importance. The ability to do things should be added to the fact of being able to shake hands well. It often happens that when the patient goes to the doctor and makes complaint that he is not quite satisfied with the results of the treatment, the doctor becomes offended; he thinks his skill has been subjected to criticism, and under these circumstances it not infrequently happens that the doctor says some very unkind things to the patient, and the patient goes home with the feeling that he has not only been damaged physically, but been damaged mentally as well. He is angry about the matter, and we know of instances in which the patient has gone directly across the street and employed a lawyer because the doctor did not treat him right. As Mr. Dutcher has pointed out the ultimate results of our work can be very easily discovered, the patient is able to see and feel for himself, he knows whether he has a shortening of the leg, he knows

whether he has a crooked arm or leg. If this patient had been operated on for appendicitis or gall-stones, the operation may not have been very smooth, there may have been a great many rough points in the operative procedure, but nature smooths them out and the patient knows nothing of it. This is not true in the treatment of fractures or in plastic surgery, the results of which may be seen from the surface. There are many surgeons who dislike to do plastic operations on the face because the result is seen very plainly, and this is true in regard to fractures. This morning we had a very excellent presentation by Dr. Ruth setting forth a kind of treatment which is essential to the successful treatment of fractures, and it was intimated in both paper and the discussion which followed that very many times it is impossible for the doctor to carry this apparatus with him and that under those circumstances he may employ whatever thing comes to hand. And it very often happens that when the doctor starts out with a crude sort of splint he continues the use of it until the end of the case, in which event he may get a bad result, or at least not a first-class result. It would be better for him to use a trailer if necessary, because he could carry with him a Thomas splint and Balkan frame and be fully prepared. Then, too, the mental effect of this preparedness is very great, I am quite sure that were the doctor to come with all this apparatus complete the patient and the family would be profoundly impressed with the care and skill with which the doctor was able to meet cases of fracture. Then again, as was pointed out this morning, the doctor who expects to treat fractures should adopt some particular method of treatment and not employ one kind of fracture apparatus one time and another at another time because in that event he does not become familiar with any of them, therefore he frequently gets bad results. In regard to the x-ray, we find that the courts expect that a surgeon shall inform himself as to the exact condition of the fracture. The doctor should make a diagnosis of fracture, and then by means of the x-ray determine whether he has successfully reduced it and whether the apparatus he has applied will retain the fragments in position. It sometimes happens that in country places the doctor excuses himself for not having an x-ray picture on account of the difficulty of getting to the apparatus. But the law does not take this into account, and the jury will not take it into account. Court and jury will simply consider the fact of the deformity and the question.—Was there any means by which that deformity could have been prevented? The legal status of these malpractice cases cannot be definitely defined. The law states as specifically as possible what is expected of a doctor, but at the same time the question of responsibility rests with the jury, how they look upon the matter. And they may not be governed by the strict letter of the law in regard to the matter of treatment. Therefore we must take into account what twelve men are liable to say in

regard to whether the doctor took all the means that were necessary to obtain a good result. Then there is another point which we have not mentioned here, and that is the attitude of neighboring doctors. There is a critical spirit on the part of many medical men, and when a patient suffering from fracture and resultant deformity has occasion to consult another doctor, he sometimes unwittingly says something that leads the patient to believe that a better result could have been obtained, and if the patient once gets the idea that better results could have been obtained, then he insists that a certain amount of damages shall be awarded to him. When a patient criticizes us for not getting as good results as we should have obtained, we take it to heart in the belief that we have been insulted, and therefore we become impatient with the man and feel that our professional honor has been assailed. But we have to consider that this is a matter of business, that the practice of medicine is not a matter of sentiment, but of business. When a man gets a result not as good as it ought to have been he wants to be paid for it. If after buying a bushel of potatoes he were to find that a certain number of them had spoiled, he would feel he should have some return for the loss sustained. And so it is in the practice of medicine. In the old days when I was young the doctor was a family relation and they would forgive him almost anything, they would go around for the rest of their lives more or less crippled, and because the good old doctor who was so sympathetic and kind had made a mistake they did not want to put him to any trouble. That day has gone by. People no longer have that sort of feeling, and if there is any opportunity of making a claim for damages (we will not call it malpractice, but damages), he will make a claim so he may get a little money, and sometimes perhaps an indefinite desire for revenge plays a part. So he gets an amount of satisfaction which we as defendants do not really understand.

Dr. A. L. Judd, Kanawha—I would like to ask what would be the result if, in a case of injury to a child, the parents were to refuse to allow this child to be taken to a hospital or to some other place where an x-ray examination could be made; what would be the legal status of such a case?

Dr. C. A. Boice, Washington—There is one other matter in the care of these fracture cases which the essayist did not mention in his most admirable paper, and that is the keeping of very complete records. When the physician or surgeon is called to a fracture case and has made his diagnosis, I believe he should, in the presence of the patient, write up the history of this particular case and the method of treatment which he has employed, and at every visit he should follow this up by taking notes before the patient or family. If the patient refuses, as patients sometimes do, to permit you to have consultation, or if he refuses to go, or it is impossible to get him to an x-ray machine, as is quite common in sections where it would be necessary to transport the

patient over many miles of mud roads such as we have in southeastern Iowa, that fact should be made a matter of record. More than once I have had patients ask me why I write that all down. In one particularly severe fracture case I had three or four different doctors see the case with me, and one day the patient said, "Why did you have all those doctors come into the room?" And I answered, "If you had ever sued me for damages you would know." I frequently explain to the patient that I have a record of everything I have said to him and of everything he has said to me. The keeping of such a record is certainly a very important point in the proper handling of these most troublesome cases.

Dr. C. F. Wahrer, Fort Madison—The essay by Mr. Dutcher is one of the finest I have ever listened to on the subject. Sometimes the risk assumed by men who are not surgeons, may I say incompetent men to do this kind of work, allured by the fee behind it and the importunate demands of patient and friends, is very great, for not infrequently they become the victims that have been referred to here. Let me say to you, my dear friends, do not assume risks unless you know you are competent in the particular line of work involved. You had better refer the patient to somebody who is more competent to do the work, than to fight the parasite that tries to raise tribute from you. Again, the question of anesthesia, which means as well the question of an assistant and also a witness, is often to blame for the results. There is quick, rapid coaptation, insufficient maintenance of that coaptation, which may lead to undesirable results and trouble. Notwithstanding what I have said, many very competent men in surgery have a continuous train of lawsuits on hand because they are usually abundantly able to pay damages and these parasites and skunks know this. I beg your pardon—I speak English and I can equally well speak German, but I haven't the vocabulary to do these individuals justice. Usually decent men and women, who have a little sense, are not the ones who bring these damage suits. It is these parasites, the offspring of skunks and rattlesnakes, that are trying to prey upon and live at the expense of the body politic who bring these suits. Once more, if you are assailed, remember and tell these people this: I have the Iowa State Medical Society with its legal talent behind me to back me with 5,000 of my brethren, and if you want to try that game you try it on! And there is one more little rule that I have tried; it may not always work, but I am seventy and it has worked so far. I can't fight law suits, so I told the man who tried to bring suit against me and his attorney: "If you bring this suit against me one of us is going to leave this little terrestrial ball and go to heaven or some other place." If you are fortified with the knowledge that you have tried to do right and have wronged no man or woman no matter how unfortunate they may have been, and in addition to this you present a bold front and declare that you will not submit to such an indignity as that, you will

be able to avert further trouble. I will cite one case out of many: I set an arm that had been very badly fractured and splintered at a skating party. The man who had been the girl's escort on that occasion undertook to be present and dictate to me how I should manage the case, and said: "Remember, young man" (this was some time ago), "if you do not fix that right I will sue you and get every penny you have." I said to him, "Are you related to this woman?" "No," he replied. "All right," I said, "I have got something to say: I am going to say to you that if you bring suit against me I will take a hictory club and I will mash your head until you are dead, dead, dead, and may God have mercy on your soul!" And I will tell you how I clinched that: I said to him, "If you are afraid I will hide behind the saying, 'because we have no witnesses,' I want you to come with me to a competent person in the law and make this same statement in the presence of witnesses, and we will include your statement with the threat to sue me for damages in the same affidavit." This straight talk and the fact that I got good results did not result in the threat he made. Stand by your State Society and it will stand by you.

Mr. Dutcher—In answer to the question of the gentleman who asked what he should do if the parents refused to permit their child to be taken to a hospital or to have an x-ray taken for examination, let me say that your profession is entirely a private calling from the legal point of view; you do not have to respond to any call, and, having responded to a call, you are not required to continue to treat the patient. You are required, of course, if you have responded to the call, to give notice so that the patient can have a reasonable opportunity to secure other professional attention before you abandon the patient. Therefore you would have the right, subject to these limitations, to refuse to treat the child or to proceed farther. Of course, if the circumstances do not seem to justify that course, it will be your privilege to attend the child, doing the best you can under the circumstances. You are taking your own risk in that case, and you have to use your own judgment. So far as the law is concerned, it does not require you to treat a patient under conditions dictated by the patient—you have a right to dictate your own conditions. And you should exercise your judgment in that particular. If you do treat the child under these adverse conditions you ought to have some sort of a witness there in order that you may vindicate yourself in case you are called upon to do so. In regard to incompetency as connected with medical practice, I said nothing about that because I assume no one here answered that description. There are undoubtedly members of your profession who are incompetent. I think I have had some malpractice cases that had really considerable merit in them, but I believe on the whole they are rare. Something was said about the character of the people who bring these malpractice suits. Upon the average the people who bring malpractice suits are shiftless, they

are away below the average standard, there isn't any question about that. And when dealing with a person of that kind and you appreciate the fact that your patient is an individual of that character, you ought to use ordinary common-sense in having some witnesses as to what you are doing; take some professional brother out to see the case with you or take a friend and call his attention to the way you have your splints and appliances adjusted and your method of treatment. As to the methods of defense spoken of by Dr. Wahrer, I did not touch on them although I have no doubt they are very efficacious. I have a selfish reason for not having that sort of a trial of these cases, it would contribute nothing to my own profession. I would, however, suggest to the medical defense committee that Dr. Wahrer might be a very valuable asset if we could in some way identify him with the medical defense of the Society and take advantage of him and his methods in certain rare cases.

ETIOLOGY OF AND PROPHYLACTIC IN- OCULATION IN INFLUENZA*

E. C. ROSENOW, M.D., Rochester Minnesota
The Mayo Foundation

When influenza appeared in the autumn of 1918 it became apparent to everyone that the infection was more severe than the more common types of infection which had been considered influenza. The intense cyanosis, dyspnea, the extreme prostration and marked leukopenia were clinical signs so pronounced that all of us, I am sure, have vivid recollections of them. The tendency to acute hemorrhagic edema, with bloody expectoration, the great tendency to massive involvement of the lung and the huge size of the lung found by pathologists after death, constitute a picture which further distinguishes this epidemic from the ordinary.

Just as the clinical picture was peculiar, so the bacteriologic findings were found to be peculiar. The sputum from the very onset of the disease contained unusually large numbers of green-producing streptococci which differed from the *Streptococcus viridans* flora that persons normally harbor. The colonies were larger, more moist, and produced more green on blood-agar plates than the ordinary *Streptococcus viridans*. The influenza bacillus was found present in the beginning of the epidemic in some instances in large numbers, but was rarely found later.

The findings in cases of acute deaths were also peculiar. The blood during life usually was found

*Presented before the Tri-State District Medical Society, Rockford, Illinois, September, 1919.

to be sterile by ordinary blood culture methods. The blood after death was often found sterile and the number of microorganisms in the lung exudate compared with pneumococci in lobar pneumonia was relatively small.

It was thought that injections of sputum directly or other material from the secretions of cases of influenza might throw considerable light on the etiologic agent; moreover, it might be possible in this way to determine which one of a series of organisms more or less constantly present is the virulent one. This was done, and it was found that animals often died within twenty-four or forty-eight hours from intraperitoneal injections of a very small amount of sputum. Death was associated almost always with a form of green-producing streptococcus or pneumococcus. When pneumococci from lobar pneumonia are injected intraperitoneally in animals they die from pneumococcemia. The blood contains numerous microorganisms. In these cases the animals died with peritonitis, not usually serofibrinous, more often hemorrhagic, and the number of microorganisms in the animals' blood after death was relatively small as compared with the number following injection of pneumococci. It was found, moreover, that the strains from influenza tended to produce hemorrhage, edema of the lung and bronchopneumonia, following intraperitoneal injection.

I wish to show you a few of these peculiarities and some of the results of prophylactic inoculation with a mixed vaccine by means of lantern slides.*

The incidence of influenza in persons inoculated was about one-third as great, and the incidence and death from pneumonia about one-fifth as great as among the uninoculated. The mortality in pregnant women among the vaccinated was 12 per cent, as compared with 20 per cent among the unvaccinated.

As a result of our study of the sputum and exudates after death, we can say that in influenza there is present a green-producing streptococcus which appears to bear specific relationship. The monovalent serum developed in the horse has the power of agglutinating practically all of the strains. Single agglutinable cultures absorb the specific agglutinins from this serum for practically all of the strains. By means of a vaccine containing type pneumococci a high percentage of the freshly isolated strains, having this peculiar relationship together with pneumococci of

Group IV, hemolytic streptococci, and staphylococci, it appears possible to rob influenza of some of its terrors.

I regret to say that we shall be unable to supply the vaccine for influenza and pneumonia this year. The demand already is large and would no doubt grow to proportions which would make it quite impossible for us to supply the vaccine in the event that influenza again becomes epidemic.

The formula of the vaccine, aside from type pneumococci, should be made to correspond roughly with the bacterial flora at hand in different parts of the country, although a study of the results obtained last year indicates that special adjustment is, in general, not necessary. The strains should be incorporated as soon after isolation as practicable. Bacteriologic laboratories in various communities, the biologic manufacturers and state and municipal boards of health should supply properly prepared vaccines for prophylactic inoculation. The oil vaccine, it seems to me, should be preferred, since the dose can be made larger with less constitutional reaction owing to the slow absorption. Moreover, the method for the preparation of lipovaccines, which Osterberg and I have developed, is quite simple.* During our study of prophylactic inoculation with a saline vaccine, it became clear that the immunity conferred diminishes perceptibly after a period of six weeks to two months, and hence indicates that revaccination at the end of this time is desirable, which can be done more readily with oil vaccine, since only one dose at a time is necessary.

Discussion

Dr. D. R. Connell, Beloit, Wisconsin—I would like to ask Dr. Rosenow where one could secure some of this serum. I suppose he will answer, "At the state laboratory of Wisconsin, at Madison." If I recollect aright, the state laboratory at Madison said that the serum was useless, and about three months ago they told us it wouldn't be any use to try to get it there. From Dr. Rosenow's talk, it sounds all right, and I would like to know where to get it. The things in the drug stores certainly are not any good.

Dr. Rosenow—That question has been under discussion for a number of weeks. As the demand is now looming up for it, it will be physically impossible to make it all at one place. The logical thing is that it should be made in the various localities where the disease occurs. To my mind, it is just as logical to immunize persons temporarily with pneumococci and streptococci as to immunize them in the case of typhoid. According to statistics, epidemics of influenza last from about six weeks to two months. The matter of where to get the vaccine is most per-

*Here Dr. Rosenow showed a series of lantern slides and pointed out the peculiarities previously referred to, and tables indicating results from vaccinations.

*A method for the preparation of prophylactic and autogenous lipovaccine. Jour. Am. Med. Assn., 1919, vol. lxxiii, pages 87-91.

plexing. Most state boards of health have done nothing toward producing a vaccine. As far as I know, there has been really no intensive effort to prove whether it can be made in the localities where it is needed.

Dr. Solomon Solis Cohen, Philadelphia, Pennsylvania—The question seems to be rather important. I think that Dr. Rosenow's work and the demonstration that he has brought before this Society is convincing of the necessity for the widespread use of properly prepared bacterial preventives against influenza. In Dr. Rosenow's charts, it appears that in some cases the persons who had been vaccinated twice were perhaps more susceptible to the infection than the persons who had only been vaccinated once, while those who had been vaccinated three times appeared to have recovered from the temporary depression caused by two vaccinations. I would like to question Dr. Rosenow on that matter.

Dr. Rosenow—So many physicians in their desperation used the vaccine in the treatment of the disease and believed that it did good. If there was actually a negative phase in the dosage that was used, it would seem that the person who was vaccinated surely would be the one to show bad effects. Answers from over 2,500 physicians who used the vaccine showed, with one or two exceptions, that they all felt there was a slight negative phase. The epidemiologist says, "How is it possible that you can do any person any possible good with a dead germ when he is already infected with a living one?" This brings up the whole question of the use of vaccine in acute infections. In cases of influenza, the initial attack lasts for three, four or five days, and then the patient either recovers or suffers from a relapse. Many persons with influenza to whom the vaccine was given expressed themselves as feeling better; the aches and pains disappeared for a period after the vaccine was given, a fact which is hard to reconcile with the established notions of immunity. Recently there have been some studies, however, which go to show that the improvement that has been observed by many persons may have some basis, namely, that as the person is infected for those three or four days, antibodies may be formed but be held bound by the cells and not appear in the circulation. The vaccine or other foreign protein serves to liberate these bound antibodies and the drop in temperature and general improvement may, as Larson has shown, be due to this cause.

REGIUS CHAIR OF MEDICINE AT OXFORD

The king on the recommendation of the Prime Minister has approved the appointment of Sir Archibald E. Garrod, K.C.M.G.M.D.F.R.S., to be Regius Professor of Medicine in the University of Oxford to succeed the late Sir William Osler.

INFLUENZA: ITS SYMPTOMS AND COMPLICATIONS*

E. D. ALLEN, M.D., Hampton

It is almost with a feeling of apology, in view of the many papers that have been written on this subject, that this paper is presented to a body whose members had such a wide experience with influenza during the epidemic of the last fall, winter and spring. The title should better read, "The Symptoms and Complications of Influenza as Seen in Franklin County," as it summarizes in large part the experience of the local profession with the epidemic.

The epidemic began the first of October, 1918, though there were a few cases the latter part of September, but to my knowledge, few were diagnosed as such. From the middle of October until late in the spring, the board of health kept a record of all the cases reported by the physicians of Hampton whether in town or country. The total of all cases reported was nearly 2500. This is included in a territory perhaps twenty miles square. In this territory there were twenty-one deaths, giving the community a mortality of 0.8 per cent during the epidemic.

The period of incubation was universally short. In a community where the disease was so widespread, the point and time of contact so difficult to determine, the period of incubation was hard to estimate. In families, however, where one individual carried the infection to the rest, not otherwise exposed, the period of incubation varied from two to three days, and in a few instances was even less.

The onset was almost invariably sudden. The initial symptoms were chilliness, prostration, fever, headache, backache, and pain in the limbs. In addition to this there was a peculiar depressed mental condition and a characteristic facies, with injected conjunctivæ, flushed face, and crimson or slightly cyanotic lips.

In the influenza cases without a pulmonary complication the respiratory rate was not very much increased and was low in relation to the height of the temperature. A rise in the respiratory rate over any considerable period of time was one of the most trustworthy indications of the impending complication of pneumonia. The physical signs present in the chest were slight and were mainly sibilant or coarse rales transmitted from the trachea or bronchi.

The most common of the respiratory symptoms was cough, and it was present in practically all

*Read at Austin Flint-Cedar Valley Medical Society, November 4, 1919.

cases at one time or another, even in those classed as uncomplicated. At the start it was usually hard, dry and racking in character, unproductive, and with a tracheal or retrosternal soreness. Later it became looser and there was a mucoid or muco-purulent expectoration, often tinged or streaked with blood. Hoarseness was a common companion of the cough and varied with the dryness of the throat.

Coryza was a very frequent symptom, occurring in fully 60 to 70 per cent of the cases. The discharge was at first thin, watery, and very copious, becoming later mucoid or purulent, and like the sputum, often blood tinged. Epistaxis occurred in probably 25 per cent of the cases, and in a few was often a distressing and alarming symptom, as the loss of blood was very severe. It seemed to depend upon the severity of the infection and we came to expect a long convalescence in those with severe nosebleed.

The most characteristic of the cardiac symptoms in the uncomplicated disease was the slow pulse, it very rarely going above 90, even when the temperature was at its height, and any continued increase in the pulse, as in the respiration, denoted the occurrence of a complication. An early diastolic murmur of the pulse was common and was not an alarming sign. In convalescence there were frequent tachycardias, in some, arrhythmia, and in others, alternating bradycardia and tachycardia. The blood-pressure showed little or no change during the attack. In convalescence a persistent lowered diastolic pressure with frontal headache was common, caused probably by a loss of vaso-motor tone, rather than by a myocardial degeneration. The blood showed a leucopenia of a moderate degree, the white cells rarely falling below 5000, with a relative increase in the lymphocytes.

Of all the symptoms referable to the nervous system, headache was the most common. It was frontal and of a persistent dull, boring character. In the acute stages of the disease it is regarded as due to the systemic intoxication, and the headache of convalescence as due to a cerebral anemia caused by lowered blood pressure. Delirium was uncommon in the uncomplicated cases, except in children in whom it was quite frequent. Apathy, mental dullness and somnolence were common. In a few cases insomnia was a marked and distressing symptom, persisting until the fall of the temperature. In this epidemic meningism was very uncommon in contrast to the epidemic of 1889-90.

Symptoms referable to the gastro-intestinal

tract were more frequently seen in children than adults. Of these nausea and vomiting were the most common, but were seldom severe or persistent in character. We encountered abdominal tenderness associated with abdominal cramps occasionally in children, sometimes more than one case in a family. There was very seldom diarrhoea. There was in most cases a pharyngitis, and in a small proportion sore throat was complained of, but it was due rather to the congestion of the throat as a whole, rather than to a tonsillitis. Anorexia was present in nearly all cases, with a perversion of the sense of taste.

One of the most common of the cutaneous symptoms was sweating which was practically universal and independent of the use of diaphoretics. The face was highly flushed, the conjunctivæ injected, and the lips crimson or slightly cyanotic. In a few cases there was an erythema which spread down over the chest and back, and which was almost suggestive of scarlet fever. Herpes labialis was common during the fever.

The symptoms referable to the urinary system were the least noticeable of all. In many of the cases, it is true, there was a slight albuminuria during the febrile period, but it cleared up after the fall of the fever and there were no casts or blood cells indicative of any serious change in the kidney functions.

The majority of the influenzal cases recovered rapidly. In a small per cent, however, convalescence was delayed to weeks or months with persistent muscular weakness, lassitude, mental depression and cardiac neuropathies.

Of all the complications of influenza the most frequent and most important were those of the respiratory tract, and of these the most frequent was pneumonia.

The pneumonia of influenza was an atypical pneumonia. The etiology was varied—the pneumococcus was by far the predominating organism, being present in the sputum in 90 per cent of the cases, the streptococcus was the next most frequent, being present in 60 per cent, the *B. influenzae* was found in 25 per cent of the cases, and the micrococcus catarrhalis in a few instances. The mode of infection is by direct extension from the trachea and bronchi. The areas of consolidation vary in size and number and are usually scattered throughout both lungs. They vary in size from the minutest foci, involving only several alveoli to large confluent areas which may involve the greater part of a lobe. The alveoli and bronchi are filled with an exudate that is composed of bacteria, polymorphonuclear leucocytes,

red cells and many epithelial cells. The walls of the air cells and the bronchi are infiltrated with fluid and leucocytes. In some the areas of consolidation soften and have the appearance of small abscesses. Resolution is slow and fibrous tissue formation is common. A chronic bronchial dilatation is a frequent occurrence.

The onset of the pneumonia varied. In some the patient was extremely ill and the pneumonia was evident from the start. In others it developed insidiously, the patient gradually becoming worse at a time when convalescence might be expected, and in a few the pneumonia began after convalescence had begun and the temperature had been normal for several days. With the advent of pneumonia there was an increase in the mean level of the fever and the fall was by lysis instead of by crisis. The pulse was increased and in very sick and fatal cases was extremely high with a falling blood-pressure. The respiration was increased, but except in the fatal cases was not extremely rapid or labored. The sputum was increased and became more purulent. In the fulminating cases it was almost of a serous nature. The cough was a distressing symptom in many cases but cannot be compared in severity to that of a lobar pneumonia. There was little pain as a rule. Cyanosis was a symptom which was very striking in the influenzal pneumonias and when combined with the characteristic pallor gave a peculiar dark-greyish blue appearance which was of very grave import and betokened an invariably fatal ending. Along with this cyanosis was a peculiar anxious delirium, expectoration of a pinkish frothy character, an extremely rapid empty pulse and lowered blood-pressure, showing a myocardial failing under the profound toxemia.

Lung abscess may result as a complication or sequel of influenzal pneumonia. When small they are not recognized in life, but when large may be demonstrated by the physical examination or x-ray. One of the fatal cases in the county died with a lung abscess.

Empyema and pleurisy were not as frequent in our cases as after lobar pneumonia. It was our experience, however, that if a pleurisy did develop, it was very apt to become purulent. The streptococcus was the prevailing organism in all the empyemas. These cases did well as a rule under rib resection and drainage.

Sinus infections were quite common and were quite sure to develop in those who had moderate or severe epistaxis. These cases always had a longer convalescence with tenderness over the maxillary or frontal sinuses and with a persistent

foul, bloody and purulent discharge. The mastoid sinus was affected very seldom—in contrast to the epidemic of streptococcic infections of 1915-1916.

Endocarditis was extremely rare. Myocarditis was not uncommon and was frequent in the pneumonias, caused probably by the extreme intoxication. Arrhythmias were common, as was a persistent tachycardia during convalescence. Associated with the cardiac changes there was in many cases a loss of vaso-motor tone which gave a dull frontal headache and lowered diastolic blood-pressure. Some cases showed an intermittent bradycardia and tachycardia. A demonstrable pericarditis was extremely rare and appeared in one case.

Complications of the gastro-intestinal tract were very rare. There were few cases of peritoneal invasion or of infections of the gall-bladder or appendix—this is in contrast to the epidemic of 1915-1916 when these complications were very frequent.

We did not have much experience with pregnancy and pneumonia. One fatal case developed influenza during the sixth week of pregnancy, miscarried and developed pneumonia. It is the consensus of opinion, however, that the mortality was increased in pregnant women, and that a large percentage of pregnant women who developed influenza did miscarry.

Mental depression was marked and tedious in a few cases, amounting almost to a neurasthenia, with tachycardia, muscular weakness and lassitude, vertigo and disturbances of digestion.

The relation of encephalitis lethargica to influenza is not as yet fully known. It is certain, however, that nearly all the cases of encephalitis occurred in persons who had had influenza. There were two cases in our district, one fatal. The fatal case was well marked and characteristic.

Case Report—A young man, twenty-three years of age was seen May 29, 1919. During the past winter had had an attack of influenza of moderate severity but from which he had been slow recovering. The past history was negative except for a chronic bronchitis for which he had been in the West for several years until the last year. On May 27 and for the week previous had not been feeling well and complained of feeling tired and of having headache. On May 27 became very somnolent, so that he had to be assisted in dressing and was taken to his home. On May 29 he was very stuporous, hard to rouse, but talked intelligently when attention was gained, speech and flow of ideas were slow. The temperature was normal, pulse 80 and strong. The face was

expressionless, all the muscles were slightly rigid and when placed in any position held it for several minutes. The eyes reacted to light sluggishly, the pupils were equal. The reflexes were all present but sluggish, no clonus, no Kernig or Babinski. The thorax and abdomen were negative to examination. The urine and blood were normal. Permission for lumbar puncture was not obtained. On May 30 the condition remained the same. On the 31st the temperature commenced to rise suddenly, the pulse increased, and the stupor deepened so that he could not be aroused. He developed an incontinence of urine, and the breathing stertorous. During the day the pulse and temperature became extremely high and he died in the evening of the 31st. Shortly previous to death the temperature was 106. There was no necropsy.

In conclusion, it was our experience that about 40 per cent of the population in our district was infected with influenza during the fall, winter and spring, that the mortality was low, and that the respiratory complications were predominant, and that of these, pneumonia by far over-shadowed the others. Another surprising circumstance was that the infection was least prevalent in the old and young, striking down those of active years and robust health.

RADIUM*

H. E. MEYER, M.D., Hampton
Of the Hamilton Clinic

In giving this paper on radium, the data is to bring to your attention the fact that though radium is not a "cure all", it has a definite place and use in the practice of medicine and surgery. The daily press by first lauding then criticising radium has left the impression on many minds that radium is a fake. But this is erroneous. And in well selected cases it gives results that are truly wonderful.

When such workers as New, Stacy, Watkins, Simpson, Braasch, Howard A. Kelly and Hugh Young admit that in selected cases it is the only thing of value one must disregard the opinions formed by the press. Radium today holds a distinctive place in the treatment of neoplasms and this is particularly encouraging because of the fact that the results following surgical treatment of many of the neoplasms have not been satisfactory. The special value of radium in such cases is that it may be carried directly into the bladder, rectum, vagina cervix, uterus and so forth and thus come in direct contact with the neoplasm.

Radium has a specific action on certain tissues such as epitheolioma (basal cell) sarcoma, angioma, nævi, causing them to shrink up and disappear. In other types its action is destructive. It also acts more readily on rapidly growing tumors (lymphosarcoma) than on the slow growing tumor.

We have treated eighteen cases that come under this classification and most of these were inoperable cases and the results have been very satisfactory—only one death has occurred. In this particular case there was no hope and we gave them no hope from the first, but it did relieve the pain, stop the odor, and give the patient a few more months of comfortable living. I am showing you a case in this group today and will let you see for yourselves what radium will do for malignant neoplasms and particularly those that refuse operation or which could not be successfully operated upon.

Another class of patients that are of particular interest are:

Type of menorrhagia of menopause not associated with large fibroid tumors in which the possibility of carcinoma is eliminated.

Type of menorrhagia in patients between ages of thirty-three and forty years who have small submucous fibroids, or have no demonstrable lesions.

Type of myomas in which there is a contraindication to operation.

Type of menorrhagia in young persons who have resisted medical treatment. (Classification by H. Kelly—Baltimore.) If you will stick to this classification you will have results. Radium acts in these types of cases by the Beta and Gamma ray producing an endarteritis which goes on to the obliteration of the blood vessels. In this type of cases one to three applications of 50 mg. of pure radium element from four to six hours is usually enough. The technic that has been in use in our clinic is given in this way:

1. Cleansing douche.

2. Cervix is drawn down by tenaculum forceps swabbed with tincture of iodine, dilated and radium encased in silver tube about which is a heavy rubber tube, 5 m.m. wrapped in single layer of gauze and inserted into uterine canal—vagina is then packed lightly with gauze. Patient is put to bed for twenty-four hours, then allowed to be up and sent home in two or three days. The first menstrual flow after treatment is usually very profuse but after this it grows very much less until it has completely stopped or if the dose of radium has not been large the flow becomes normal in amount. One can regulate the flow by

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H. R. REYNOLDS, M.D.

Commissioned Lieutenant, June 20, 1917.

Active duty at Ft. Riley, August 25, 1917.

Asst. Instructor M. O. T. C., Ft. Riley, November 1, 1917 to July 5, 1918.

Commissioned Captain, May 23, 1918.

Camp San. Inspector, Camp Wheeler, July, 1918 to February, 1919.

C. O. Med. Det. and San. Inspector, Base Hospital, Camp Beauregard, La., February to April, 1919.

Camp San. Inspector, Camp Benning, Ga., April 18, 1919.

giving light doses instead of one single dose, which may produce an artificial menopause lasting from two to three years.

The third group of cases that can be successfully treated are those known as skin lesions, such as:

1. Epithelioma of face, hands and so forth. But let me say here that epithelioma of the lower lip should never be treated by radium, until it has first been treated surgically (because of metastasis to glands—submaxillary and sub-mental).

2. Keloid. This is one of the hardest cutaneous conditions to alleviate and good results can only be secured by careful screening. The technic is difficult. One should take plenty of time and remember that short exposures which just redden the skin will give ideal results. If used sufficiently long to cause destruction of the growth, the keloid will return shortly.

3. Nevi. As the various birth-marks calling for treatment are usually located upon the exposed portions of the body, particularly the face—the treatment is expected to result not only in their eradication but with perfect cosmetic effect. The difficulty is that any method which will destroy the blood-vessels will to some extent, destroy the other tissues which are much less resistant than the dilated blood-vessel. One must have had a great amount of experience in order to get good results with radium. In fact, I believe that one who has not had considerable experience with radium in skin lesions, had better select some other method for removal of these conditions.

4. Pruritus. When everything else has failed and one has tried the various ointments, use radium and see the expression of gratitude that comes from these sufferers. You will be surprised often to see the lesion which has caused the pruritus disappear.

5. Psoriasis and T. B. gland will often disappear after radiation though one should be careful not to promise too much in these chronic affairs.

I wish to say that I have written this paper with no idea of making it scientific, rather to bring to your mind as physician and surgeon that among the diseases which are considered inoperable—incurable if you choose—you have at hand a potent and powerful instrument in radium which can and does relieve—yes, cures cases that seem beyond hope. When you go back to your busy life, think well before you tell your patient that you have done all that can be done; if you restore health to one in twenty—yes, one in one hundred, it has been worth while. You may think I am over enthusiastic—that I have a hobby and I am

willing to grant you that I have—but it is not radium. I know some of its values, some of its failures, but the failures I am able to charge largely up to myself.

Every case that has come to the clinic for radium treatment has had every means for diagnosis exhausted before being turned over to this department. We have tried to be as careful as it is humanly possible to have a correct diagnosis and much of our success we owe to this.

Our general surgeon was not over enthusiastic at first, in other words, he had to be shown. Now he recommends to his patients of the mentioned types, radiation before or after surgical treatment as he sees fit.

To sum up results in radium:

1. Don't promise to cure everything and anything, but remember that in
2. Carcinoma, operable or inoperable, you will get a percentage of cures and at least relief for yourself and patient.
3. Sarcoma gives the best of results.
4. In types of menorrhagia.
5. In skin lesion one may look for surprising results if handled with care.

THE PHYSICIAN A SOCIOLOGIST*

P. W. VAN METER, M.D., Rockwell City

Since no one doubts that a time is coming soon when the practice of medicine will far more than at present consist in attempt at the prevention of disease rather than its cure, it seems wise to lift out eyes from our present (and ever present) problems, to look a bit into the future. My aim in choosing this subject is to have our members, in County Society assembled, take that forward look and tell each other what they see. The opinion of one man, even if he were wise and far-seeing, would still be an individual opinion and of according value, while the consensus of opinion of even a small society would have value and weight.

There is no reason for pessimism concerning the future of our profession; neither as general practitioners nor the profession as a whole. No more for pessimism regarding the future than for regret or gloom or shame about its past achievements. That changes inevitably result is because the world changes and ours is a progressive profession; if any has a right to be so called, medicine has surely.

Perhaps some have not realized how intimately

*Read before the Calhoun County Medical Society.

the physicians work concerns the social fabric of our lives and so it is that some will doubt that the future will see the physician the sociologist of prominence in every community. Social problems loom larger on the world horizon than do any others today and if we do a man's part, physicians will have a large share in their solution. Large city hospitals and dispensaries have for some time recognized their responsibility to the public and sought with varying degrees of success to discharge that responsibility. There has been a systematic investigation into living conditions in the homes whence came the hospital and dispensary patients with follow-up methods to determine if the medical or surgical treatment accomplished was being conserved by proper hygienic living or dissipated by vicious surroundings. They have tried to see to it that proper food, fresh air, out door exercise and happy surroundings generally obtain, so that there might be real progress in reconstruction, however, there is as real and as hard to discharge an obligation upon every practitioner, did he but realize the fact. That day is past when men are permitted to make capital of those less powerful than they, and the public make not a word of protest. The time is here when it is considered not only right but mandatory upon the social machine, the body politic, to provide for those who individually compose it, and opportunity to live and have their being amid happy, healthy surroundings, with sufficient income to more than meet their daily needs—sufficient to lay up for a future day. Commonly we think of the worker in the large city as the only one denied the good things intended he should have—and certainly it is true that country folks have a not slight advantage over the city dweller. Fresher air, better food, greater physical activity, more picturesque surroundings they have which are not to be discounted. But life consists in something more than eating and drinking or yet in breathing and smelling. The country gives less than it ought of opportunity for mental recreation and development, despite churches, chautauqua, lectures, and the disappearing lyceum course. One of our number ably considered before this society, the effect of mentality upon the physical man, and averred that one's mentality decides his physical well or ill being. So the physician needs to be awake to see to proper provisions for the mental culture of his community—nurturing every good thing that will promote such, among them being the established functions of interdenominational community churches with gymnasias, movies, assembly social gatherings, school, chautauqua, etc.,

and in addition community singing, public play grounds, debates, men's clubs, etc. Physicians have always emphasized the need of physical culture. Yet in the rural community it is supposed that such is superfluous, especially for the male. None the less are gymnasias and trained directors needed, badly needed, in nearly every community. Did you ever practice and do you remember any time when you felt so fit as when you were taking regular exercise and having cold shower baths? The rural workers daily grind of chores on a short winter's day is a poor substitute. (Besides he has to battle with the problem of digesting the conglomeration of rich foods the generous wife or mother provides for "these cold days," making any form of exercise, physical or mental, a nauseating thought to him.) The sedentary worker in the stores and offices would have a happier existence and healthier offspring, could he too have the inestimable benefit of regular exercise under a trained physical director. "Forty and fat" would have to give way to forty and fit. Wouldn't it be better to support such institutions voluntarily than to be compelled to pay tribute to the dentist, the doctor, the undertaker, each of whom will still have his share of work caused by unpreventable factors. Our young men would have less time and inclination for pool rooms, illicit gambling and general mischief if athletic contests were regularly to be witnessed and participated in, in every community. The small rural center lacks parks. Some would say they are not needed but such a view reveals lack of sympathy, and a lack of ability or will to see things from the angle of "the other fellow." Recreation consists in change and it is no change to go from one's home down a dusty road to see a bare asphaltum street or even though "Tin Lizzies" and the other kind in short skirts may adorn the latter. Have you ever been in a small town or city on a hot summer's day and not devoutly desired a cool, shady, park where you might repair for rest and repose? Such a provision for common comfort is not out of reach of every community, large and small and every community owes as much to its people. You may argue the mass of the people doesn't care for these things. If that be true, it is the duty of someone to educate them up to the point of caring for them. "As a man thinketh in his heart, so is he" said the greatest king that ever lived and present day psychologists agree with him. We think about what we see and if we see beautiful things—ergo we become beautiful—(almost as easy as Elbert Hubbard's recipe for beautiful children—"be beautiful parents"). So a plea is

made for wide streets with park ways of blooming flowers, spacious and downtown parks with botanical gardens filled with every flower that blows. Why is such a program lavish or ill advised? None is so considered that makes our hog pens bring forth stockier, sturdier shoats!

What a small per capita expense it would require to have a public nurse in every center! Why don't we have them? Isn't it because the medical profession does not demand them, nor even do its part in educating the public to see the benefit to be derived from such an institution. Such a nurse requires to be born, not made, but many such can be found who would go into homes and with trained eyes detect disease in its early stages, when slight in extent and removable or at least capable of being stopped by proper medical care; with trained hands to take over for the time the vexing problems of how to feed, clothe and nurse its inmates; with large helpful sympathies to blend the jarring notes and restore concord to a discordant family—and all this without offense to any because a part of the recognized regular routine duty of the community nurse. These women can be found at the large hospitals, civic centers, social settlements. Which of you has not at times shuddered at the prevalence of nervous disorders, neurasthenia, neuroses and frank neurotics among your patients: has not in fact almost decided that the race is doomed. Most of this could have been prevented in early life even though heredity had marred the nervous system, by proper living and home concord. Manifestly, when the household heads are worried, over burdened with anxiety in making ends meet and without proper rest and recreation, normal children cannot come out of that home. When so able a clinician as Hugh T. Patrick goes on record as believing that "some of us have neuroses or psychoses because we are unable successfully to harmonize with our environment—and for no other reason," certainly all of you agree that something adequate needs to be done to restore our American lives to a more nearly normal plane, and if a nurse can help even partially, such as institution needs our united support.

Proper housing is by no means wholly a city problem. Tenement dwellers are not the only overcrowded folks on earth. Fresh air and properly ventilated sleeping quarters are often found wanting in the small town and even country homes. Children sleeping four in a bed three-quarter size in a living room have been found even in this year of Grace, in agricultural Iowa, as has also the anxious mother who couldn't un-

derstand how her baby had caught cold as it hadn't been out of the house all winter.

Despite larger propaganda for education along proper lines of food conservation, in recent years, many deprive their children, even on the farms, of fresh milk, without which food it is difficult to see how children can thrive. Some are so busy making hogs into money they have no time for such burdensome pursuits as keeping and milking cows. State laws still negatively deny the need of testing milch cows for the presence of bovine tubercle bacilli so what chance has the doctor singlehanded to avoid making himself the butt of ridicule and a source of offense, in trying to induce his town council to make it mandatory to have the herds tuberculin tested. Poor men who cannot pay their doctor bills can buy candy by the pound for their children and the blame lies with those whose duty it is to educate the public to know that while candy has "a surprising food value," it should be eaten only after meals and not before or indiscriminately when it lessens the appetite for the more needed proteins.

With the threatened preponderance of orientals over occidentals through their greater birth rate, the questions of infant mortality, care of expectant mothers and of nursing mothers should occupy a large place in our ideas of public health and preventive medicine. Despite recent betterment in the matter of cooperation of the expectant mother with the physician, perhaps half of ordinary obstetric practice still consults the physician first when labor pains begin. This leaves no time for helping poorly functioning eliminative organs until the damage through accumulated toxins is already done and history made in that case. Propagation of the species has more than an academic aspect, the survival of the race is at stake and whom if not physicians should say a word about how it may be best accomplished?

At the successful stock farm, propagation of the species is planned, but with the human animal it remains generally an accident, which should not be the case. Thanks be to those who downed John Barleycorn, one harmful element in the lives of fathers and mothers has been removed, but there remain others: overwork, undue nervous strain, under nutrition. Procreation under such conditions is ill chosen, inopportune, and results in subnormal offspring. Let us do our share of educating the public mind to an interest in securing these helpful reforms in American custom and usage. Physicians could profitably spend time and effort soliciting state aid to arrange maternal and child welfare clinics. That sterili-

zation of unfits and non-essential citizens should be practiced in every state institution, needs to be more fervently preached by us.

Many diseases are preventable by serum therapy, others are possible of amelioration in course and extent and it is a false modesty or a lack of moral courage on our part to keep silent for fear the people will consider it a bid for business, an office practice, a "pot boiler" or "daily bread" argument on our part. The civil population should be typho inoculated, children should be tested by Schick reaction and positive knowledge had as to whether or not they can acquire diphtheria and even vaccination against smallpox needs reviving popularity. Simple goitre, says Kimball of Cleveland, can be prevented by minute doses of sodium iodide taken once a year. Also it does seem the physician should be a pioneer in advocacy of sensible shoes and decent dress for women, but we do not at least hear of many male martyrs among our ranks, in these crusades.

Be it far from us to wish the physician to become a rampant reformer. May he instead become more of a gentle guide, a good friend who has studied at first hand the needs of the human machine and who would rather help keep it in order than attempt its repair.

THE LEAGUE OF RED CROSS SOCIETIES

PURPOSE

The purpose of the League of Red Cross Societies, as formally set forth in its articles of association, is:

1. To encourage and promote in every country in the world the establishment and development of a duly authorized voluntary national Red Cross organization, having as purposes the improvement of health, the prevention of disease, and the mitigation of suffering throughout the world, and to secure the co-operation of such organizations for these purposes.

2. To promote the welfare of mankind by furnishing a medium for bringing within the reach of all peoples the benefits to be derived from present known facts and new contributions to science and medical knowledge and their application.

3. To furnish a medium for co-ordinating relief work in case of great national or international calamities.

ORIGIN

At the request of the Red Cross societies of the United States, Great Britain, France, Italy

and Japan, the International Red Cross committee of Geneva, on February 13, 1919, issued a call for convention of the Red Cross societies of the world at Geneva thirty days after the proclamation of peace. Coincidentally there was formed a committee of Red Cross Societies, composed of representatives of the above-named national organizations, "to formulate and to propose to the Red Cross societies of the world an extended program of Red Cross activities in the interest of humanity."

In accordance with this purpose there were called together at Cannes, France, in April, the leading health experts of the five powers, each a foremost specialist in his chosen field, to outline the program. The result of their deliberations was the determination not to await the formal proclamation of peace but in accordance with resolutions adopted to proceed at once with the formation of a League of Red Cross Societies "to promote an extended program of Red Cross activities in time of peace." On May 5, 1919, at Paris, accordingly, the league was organized.

MEMBERSHIP

The founder members of the league were the national Red Cross societies of the United States, Great Britain, France, Italy and Japan. Upon invitation the following Red Crosses subsequently joined as members: Argentina, Australia, Belgium, Brazil, Canada, China, Cuba, Denmark, Greece, Holland, India, New Zealand, Norway, Peru, Poland, Portugal, Roumania, Serbia, South Africa, Spain, Sweden, Switzerland, Venezuela.

CONTROL

Control of the league reposes in a general council composed of representatives of all member Red Cross societies meeting at designated periods.* In the intervals between these meetings control of the league is exercised by a governing board of fifteen members and two ex-officio members.*

BOARD OF GOVERNORS

The board of governors is now composed of the following: Henry P. Davison, American Red Cross, chairman; Hon. Sir Arthur Stanley, British Red Cross; Count Jean de Kergorlay, French Red Cross; Count Guiseppe Frascara, Italian Red Cross; Prof. Dr. Arata Ninagawa, Japanese Red Cross.

OFFICERS AND HEADQUARTERS

The following officers have been appointed by the board of governors and have taken up their duties at permanent headquarters of the league, 9, Cour de St-Pierre, Geneva, Switzerland: Di-

rector-General, Lt. Gen. Sir David Henderson; personal assistant to the director-general, Patrick Kenny; secretary-general, Prof. William E. Rappard; treasurer-general, M. Andre Pallain; general medical director, Col. Richard P. Strong; director of department of child welfare, Dr. Leonard Findlay; counsellor in international public health, Prof. Rocco Santoliquido; chief of division of tuberculosis, Dr. Edouardo Rist; chief of division of sanitation, Prof. George C. Whipple; chief of division of medical information and medical publication, Dr. Thomas R. Brown; chief of division of nursing, Miss Alice Fitzgerald; general medical secretary, Dr. George C. Shattuck; director of department of development, W. Frank Persons; director of department of information and publication, W. R. Hereford; business manager, Foster Rockwell; comptroller, H. R. Roberts.

METHODS OF PROCEDURE

The scope and methods of the league of Red Cross societies were outlined in resolutions adopted at the Cannes conference, as follows:

Introductory Statement—The magnitude of the relief work done during the war by the Red Cross and the personal participation in its activities by multitudes of people in many countries as well as the devotion to it and the appreciation of its usefulness by enormous numbers who have experienced its benefactions, have shown it to be an agency for good of unparalleled force and power.

The conference, therefore, heartily approves of the purpose of the committee of Red Cross societies to extend greatly the activities of the Red Cross in time of peace, to the prevention of disease and the betterment of the health and general welfare of the people in all countries. The prosperity and happiness of all the nations of the world can be greatly furthered by the power of man to promote health and to prevent disease—a power which has been vastly increased in the last half century by scientific discoveries—so as to render this new field of activity of incalculable racial significance, both socially and economically.

The potential usefulness of the Red Cross in this field is unlimited, and the program proposed is really the logical development of its previous activities in the extension of temporary relief in times of war or disaster.

As a voluntary organization engaged in humanitarian work it can command, as experience during the war has shown, the services of the great leaders of the world in every line of activity. The necessity for expert guidance and advice has been recognized in the past and will be needed in the

future and it is most important that the Red Cross should not only retain, but augment for its continued work, the great prestige and power which it has acquired with all masses, among all peoples, and in all nations.

In view of these considerations, it is our belief that no other organization is so well prepared to undertake these great responsibilities at the present time as the Red Cross, and no movement deserves more the hearty and enthusiastic support of all people than does this.

Recommendations of the Conference—The conference, therefore, heartily recommends in furtherance of this purpose, the establishment of a bureau of health with a director and a staff and an advisory council, in connection with an association or league of national Red Cross societies; and that the memoranda and reports which have been submitted to the conference on this subject serve as a preliminary basis for the proposed organization and its activities.

Other important fields of public health than those which have been presented and considered at the present conference, *e.g.*, mental hygiene, industrial hygiene, foods, nutrition, etc., are reserved for consideration when the bureau of health has been established.

It is understood that the central organization will operate mainly through national Red Cross societies, where these exist, and that itself, a voluntary agency, it will not supplant but will endeavor to strengthen, aid and co-operate with other voluntary organizations and with national health and relief agencies.

An important immediate task will be to assist in the establishment of Red Cross societies in countries where none now exist, and to strengthen and unite for health work existing Red Cross societies.

Recognizing the prevention of disease and the protection of the health of the people as a primary responsibility and function of government, a non-political organization, such as that of the Red Cross, will be able by the education of the public and in many other ways, to stimulate, support and aid the government in its health work.

Although the conference does not advise the bureau of health of the Red Cross to undertake at once all the activities considered, it submits the following resolutions and memoranda unanimously adopted by the conference relating to the special subject of preventive medicine, child welfare, tuberculosis, malaria, venereal diseases and nursing, as well as the report on publication, education and statistics, for the purpose of indicating in a general way some of the lines of activity

which the new organization may wisely follow:

1. *Resolved*: That in view of the wide prevalence of typhus fever and the extremely grave representations made to the conference concerning it, the control of this disease be at once undertaken as an emergency relief measure.

2. *Resolved*: That the promotion of a wide extension and development of child welfare work be selected as of the first important constructive activity.

3. *Resolved*: That public health legislation and efficient public health administration be encouraged everywhere and by all appropriate means, through national Red Cross societies, and particularly that the accurate and full registration of vital statistics be urged as forming the fundamental basis for definite and permanent improvement of health conditions.

4. *Resolved*: That efforts be made to secure a standardization of the vital statistics of all those countries where adequate registration and notification are not in effect so that comparable data on important subjects may be available, and that standard tables be prepared and submitted for modification and adoption by the authorities in such countries.

5. *Resolved*: That the bureau of health encourage scientific investigation in hygiene and sanitary science, since progress in public health depends upon the advancement and the application of knowledge.

6. *Resolved*: That the establishment of public health laboratories or the provision for laboratory service for every community is an extremely important means of promoting efficient public health administration.

7. *Resolved*: That the extension of the employment of public health nurses or health visitors be furthered in every possible manner in all countries, and that standardized educational centers for training such nurses or visitors be developed.

8. *Resolved*: That the program for the control of tuberculosis, malaria and venereal diseases submitted by the conference be urged for adoption in all countries.

9. *Resolved*: That since educational propaganda has been shown to be the most efficient means for forwarding all forms of health activity, we especially urge the general adoption of scientific methods.

10. *Resolved*: That the training by thoroughly qualified teachers of school children in all grades in the subjects of personal and general hygiene, and the inculcation of proper health habits during school life, are essential measures

for permanently improving the health and contributing to the welfare of the people.

11. *Resolved*: That special attention be directed everywhere to the importance of town and city planning and proper housing for working men; and that national Red Cross societies be advised to prepare plans and designs suitable for use in their respective countries, and proffer the assistance and the advice of experts where construction work is under consideration.

12. *Resolved*: That national Red Cross societies and their chapters be urged to promote the erection of buildings to be used as health and community centers in their respective localities, as a most useful, appropriate, and permanent memorial for the soldiers who have lost their lives in the war. That model plans designs for these be prepared and made available to the people of various communities.

13. *Resolved*: That the general principles underlying successful work in new countries which are detailed in the report of child welfare be recommended for general guidance in all health work in such communities.

OPERATIONS TO DATE

The first undertaking of the league following its organization was the despatch to Poland of an inter-allied medical commission to study and make recommendations on the typhus situation in that country and means of combatting it. The members of this commission were: Hugh S. Cumming, assistant surgeon general, U. S. Public Health Service; G. S. Buchanan, senior medical officer, British Ministry of Health; A. Castellani, Italian Medical Service, Naval Branch; F. Visbecq, French Health Service.

Leaving Paris August 14, 1919, the commission spent a month inspecting the territory in which typhus was raging and upon its return submitted an exhaustive report showing the world that in spite of all that had been done to overcome the spread of the disease, western Europe, England and even America might not escape its blight unless more effective measures were taken. In accordance with its functions the league submitted this report to its constituent members for action and within a short time four national Red Cross societies acted upon the matter. The Spanish Red Cross was the first to act, bringing the situation to the attention of its government and announcing the contribution of a large stock of soap toward the typhus fight. The French Red Cross arranged for the French government to be asked at the next session of parliament for an appropriation of one million francs for the support of

the fight. The Portuguese Red Cross contributed five thousand francs and the Roumanian Red Cross set aside twenty thousand lei for the same purpose.

*A General Council has been called to meet at Geneva, March 2, 1920.

THE IOWA STATE MEDICAL SOCIETY

The organization of the Iowa State Medical Society in 1850 was due to the efforts of Dr. John F. Sanford of Davenport.

On May 1, 1849, Dr. Sanford attended the session of the American Medical Association held in Boston as a delegate from the College of Physicians and Surgeons of the Upper Mississippi, then located in Davenport, and later known as the College of Physicians and Surgeons of Keokuk. Dr. Sanford was so impressed by the appeal to organize state medical societies that on his return home he wrote many letters to physicians urging them to meet in Burlington, June 19, 1850, for the purpose of organizing the Iowa State Medical Society. Fearing that sufficient interest would not be aroused by correspondence alone, he concluded to make a personal appeal and took the stage to Keosauqua, Fairfield, Mount Pleasant, Washington, and Davenport, and steamer to Muscatine, Burlington, Fort Madison and Keokuk.

On June 19, 1850, twenty-five physicians gathered at the court room in Burlington, Dr. J. F. Sanford acting as temporary chairman and Dr. E. D. Ransom as temporary secretary.

Professor Sanford delivered an able and eloquent address on the objects contemplated by the convention and which should engage its attention during the present session.

A committee was appointed to prepare and present a constitution. The committee consisted of Drs. J. F. Henry and E. Lowe of Des Moines County, Dr. McGugin of Keokuk, Dr. Elbert of Keosauqua and Dr. Witherwax of Davenport. The following officers were elected:

Dr. E. Lowe, Burlington, president.

Dr. John D. Elbert, Keosauqua, first vice-president.

Dr. D. L. McGugin, Keokuk, second vice-president.

Dr. H. M. Mathews, Burlington, recording secretary.

Dr. J. F. Sanford, Keokuk, corresponding secretary.

Dr. G. R. Henry, Burlington, treasurer.

Dr. J. F. Dillon, Farmington, librarian.

Drs. J. F. Henry, D. L. McGugin, J. D. Elbert,

A. Hull, J. W. Brookbank, E. D. Ransom, and James Flint, censors.

The Burlington Tri-Weekly Telegraph presents the following report of the meeting:

The convention is eminently respectable in appearance, and anyone would see at a glance that it embraces among its members all the learning known to the profession, and the numerous and able speeches made by various members during the debates of yesterday evinced a high degree of talent. Indeed, taken as a whole, it is perhaps the most respectable convention which has ever assembled in our state. There are many gray beards among them, who while adding dignity and weight of character to the convention, also give tone and direction to the proceedings. Among these may be mentioned as particularly active upon the floor, Dr. McGugin, an old practitioner and formerly a politician of some prominence in Ohio, but more recently a surgeon in the army and at present a resident of Keokuk, and Dr. J. F. Henry of our own city, each of whom being naturally good talkers entertained the convention during the discussions of the day with several handsome efforts. Others who took part in the debates sustained themselves very creditably—and if they could be kept together a month or so there is no telling which of them would not come out an accomplished speaker. Several legal gentlemen dropped in during the day to hear the debates, but they generally went away with the impression that their craft was in danger, and that the gift of gab was breaking loose among the professions generally.

Dr. Lowe, on being conducted to the chair, made a brief and appropriate address in which he returned thanks to the association for the honor which they conferred upon him. This is a compliment of no ordinary character, and it has been bestowed upon one who stands deservedly high, not only in his profession, but in the confidence and esteem of all who know him.

Charter members of the Iowa State Medical Society:

Drs. E. Lowe, G. R. Henry, Phillip Harvey, E. D. Ransom, J. H. Rauch, J. W. Brookbank, H. M. Mathews, Burlington; John F. Sanford, J. C. Hughes, D. L. McGugin, E. R. Ford, Josiah Haines, Keokuk; N. Steele, J. Robinson, J. F. Moberry, Fairfield; John F. Dillon, Farmington; J. D. Elbert, J. E. Evans, James Flint, Keosauqua; J. J. Ellison, Wapello; E. G. Fountain, Davenport; J. H. Hershey, George Reeder, Muscatine; M. J. Morseman, Iowa City; W. H. Rosseau, Washington.

Seven of these organizers were afterwards elected president and one of them occupied the chair twice. Dr. John F. Sanford, who did more to promote the organization of the Society than

any one else, called the meeting to order, made an able address, acted as chairman during the organization and should have been considered the first president. He was a graduate of the University of Pennsylvania and was for many years one of the most prominent surgeons in the state. He was the prime mover in the organization, of the College of Physicians and Surgeons of Keokuk and was professor of surgery in that institution for four years. He died in 1874.

At this the first session of the Iowa State Medical Society, Dr. D. L. McGugin of Keokuk introduced the following resolution which was adopted:

Resolved: That in the opinion of the Society, the sale of adulterated drugs and chemicals should be speedily arrested and to this end, the legislature of the State of Iowa, be memorialized at the coming session on the subject and an appeal be made to those engaged in the trade within the limits of the state to supply the profession with pure and unadulterated medicines.

The second meeting of the Iowa State Medical Society was held in Fairfield on the first Wednesday in May, 1851.

At this meeting Dr. J. F. Sanford presented an interesting report on the causes which contribute to depress the science and dignity of the medical profession of Iowa. One of the most prolific causes for the unhappy condition of the profession was due to a want of preliminary education in those who have entered the profession, and this was thought to be the most influential cause of depression among us. It is stated that every community must form its estimates of medical men from their proficiency to a knowledge of things of their acquaintances, with the departments of learning which may be made familiar to the popular mind.

The second most prolific cause which tended to lower the estimation of the profession in the minds of the public, refers to the influence of ignorance upon the physicians themselves. The extensive relation that medicine must ever maintain with other branches of knowledge, deprives a physician who is ignorant of the general principles of natural science, of all those instrumentalities which are necessary to develop the resources of his profession, and it not only disqualifies him from adding to the existing stock of valuable facts, but excludes him also from participating in the benefits of many of those brilliant truths, whose development has so greatly distinguished the modern cultivators of our art.

"Being thus deprived of the only means of attaining distinction in his profession, and unin-

spired by the lights that physical science throws around his path, he becomes indifferent to the progress and often to the honor of the profession.

"The third cause of the depression of medical science in this state is the commencement, by young men, of the practice of the profession before they are thoroughly qualified." (We presume Dr. Sanford refers to young men who practiced without medical college training or on one course of lectures.) "This evil had its beginning at a remote period, when the facilities for completing a medical education were beyond the means of a large number who annually entered the profession." Dr. Sanford proceeds to speak in praise of the multiplication of medical colleges as a means of overcoming these defects. (Quite different from the sentiment existing today among medical educators.)

Dr. Sanford does not forget to deprecate the habit of some regular physicians of entering into consultation with quacks of various kinds, which he reasons as one cause for the depression of medical practice. Dr. Sanford enumerates still another cause for the low standing of the medical profession; the practice of attending families by the year. He further says; "The medical service of an enlightened and benevolent physician are not to be made an article of traffic and bargain. His commerce is with the health, the lives and happiness of the human race, and should be as free from purely mercenary influence, as is his honor and reputation. But there is a principle of justice as well as propriety, outraged by this practice. If an intelligent man's estimate of a physician is not reduced by the mere fact of the bargain itself, it certainly is affected at the end of the year, when he comes to pay the physician \$15 or \$20 for nothing done, or for four times that amount of service. Again, physicians are often retained in a family by virtue of a contract of this kind, long after they have ceased to be preferred—a circumstance which almost invariably causes them to lose the respect as well as the confidence of those who are thus bound.

"These observations relate to individual instances, yet sufficiently numerous to justify what we have briefly said, every member of the society will appreciate the importance of individual rectitude to the reputation of the whole profession, where lines of distinction are not fairly established. Our profession, as a whole, stands pre-eminent for public virtue, probity and usefulness; yet the individual shortcomings of its members have often excited a popular and erroneous prejudice against it."

Much more was said by Dr. Sanford which we

have not space to abstract, and we are lead to wonder whether the seventy years which have passed since Dr. Sanford presented this address has brought about any material improvement in ethics, or whether the standards of professional morality have improved in the long period since Dr. Sanford wrote the words quoted. Whatever may be the facts, we read with pride the words emitted from the founder of the Iowa State Medical Society in the first formal report.

Dr. E. W. Lowe in his opening address at the Fairfield meeting in 1851, called attention to an epidemic of cholera in Burlington during the summer of 1850 and offered some remarks on the death of Dr. Bruning, "a native of Germany, a reputable scholar and devoted student, a graduate of the medical department of the Missouri State University, who fell a victim to the disease."

The Committee on Constitution and By-laws appointed at the first meeting in Burlington in 1850, reported the following constitution and by-laws together with nineteen rules of ethics taken largely from the code adopted by the American Medical Association which remained in force until 1872 when they were rewritten. Prior to this time, there being few county societies, any regular physician in good standing could, on application and passing a satisfactory examination before the board of censors, become a member. In 1873, a new constitution and by-laws was adopted basing membership on election by a county society, after such election the delegate became a permanent member provided he paid his dues annually. This delegate plan remained in force until 1904 when the re-organization plan of the American Medical Association went into effect throughout the United States.

* Constitution, by-laws and rule of ethics adopted at the Burlington meeting, May 19, 1850:

For the purpose of harmonizing the profession of medicine, and of promoting its usefulness and respectability, the undersigned practitioners of medicine in the State of Iowa, do adopt the following constitution, to-wit:

Article I. This association shall be known as the Iowa State Medical and Chirurgical Society, and shall hold its regular meeting on the first Wednesday of May, of each year, at such place, as the society shall from time to time determine.

Article II. The officers of this Society, shall be a president, two vice-presidents, recording and corresponding secretaries, treasurer, librarian, and seven censors; any three of these shall be a quorum.

Article III. The officers of this Society shall be elected annually at the meetings, and shall perform the several duties of their respective offices until the

close of the next annual meeting, and until their successors are chosen.

Article IV. They shall be chosen by ballot, a majority of all the votes given being necessary for a choice.

Article V. It shall be the duty of the president and in his absence, the first and second vice-president, to preside at all meetings of the Society, enforce order, put all questions to the house, decide questions of order, subject to an appeal, to give the casting vote, except at elections, and perform any other duties consistent with parliamentary regulations.

Article VI. It shall be the duty of the recording secretary to keep a correct minute of all the proceedings of the Society, subject to the scrutiny of its members.

Article VII. The duties of the corresponding secretary shall be in all cases carried on under the direction of the Society.

Article VIII. It shall be the duty of the treasurer to keep the funds of the Society, and disburse them to its order.

Article IX. It shall be the duty of the librarian to take charge of any books, or cabinet specimens in the physical sciences, and in pathological anatomy, that may become the property of the Society, and keep the same under such regulations as may be hereafter ordered.

Article X. Any regular practitioner in good standing may become a member of this Society on presentation of a diploma from a respectable medical college, or of a license from any respectable medical society, or upon the recommendation of a majority of the board of censors, and the payment of an initiation fee of one dollar.

Article XI. Any person who has been thought worthy to practice medicine, surgery, etc., by the board of censors who have examined him touching his skill, shall be entitled to receive a certificate of qualification, signed by the president, or in case of his death, absence, or resignation, by the oldest vice-president, and the recording secretary, for which he shall pay a fee of ten dollars.

Article XII. Any member of the board of censors may, on the examination of an applicant, issue a temporary license, which shall expire at the next annual meeting of the Society.

Article XIII. This Society shall have power to open a correspondence with similar institutions in the United States.

Article XIV. Any member of this Society who shall procure a patent for a remedy or instrument of surgery, or who prescribes a remedy without knowing its composition, or who shall hereafter give a certificate in favor of a patent remedy, or instrument, or be guilty of any dishonorable conduct, shall on motion be expelled by a vote of two-thirds, at any regular meeting of the Society.

Article XV. This Society by a vote of a majority of the members present shall have power to levy a

contribution upon its members, to meet any necessary expenditure.

Article XVI. Any article of this constitution may be amended at the annual meeting in May, provided three-fourths of the members concur therein.

LIST OF MEMBERS

J. F. Henry	J. D. M. Crockwell
J. F. Sanford	J. D. Elbert
E. R. Ford	H. M. Mathews
J. H. Rauch	D. V. Cole
A. S. Hudson	Nathaniel Steel
D. L. McGugin	J. M. Witherwax
James W. Flint	G. Anderson Hull
E. Lowe	J. W. Brookbank
G. R. Henry	E. D. Hansom
J. F. Dillon	Charles Cutter
J. B. Latta	A. F. Bruning
W. F. Grubb	C. G. Blood

BY-LAWS

Article I. The Society shall appoint at least one person to deliver a dissertation at the next meeting, and if such person be not present, the secretary shall advise him of his appointment.

Article II. It shall be the privilege of any member of this Society to report at the regular meeting thereof, any important cases that may have come under his observation.

Article III. The secretary shall give four weeks' notice in the public papers of the state, of the time and place of each meeting.

CODE OF MEDICAL ETHICS

Rule 1. It is the duty of every medical practitioner to treat his patients with steadiness, tenderness, and humanly, and to make due allowance for that mental weakness which usually accompanies bodily disease. Secrecy and delicacy should be strictly observed in all cases in which they may seem to be particularly required.

Rule 2. The strictest observance of temperance cannot be too strongly inculcated in the minds of the practitioners of medicine and surgery; a clear and vigorous intellect and a steady hand being absolutely necessary to the successful practice of those branches of medical science.

Rule 3. Unfavorable prognostications should never be made in the presence of patients; yet should there seem immediate danger it becomes the duty of the medical attendant, to apprise the patient's friends of that circumstance.

Rule 4. In every instance in which one physician has been called to visit the patient of another, a consultation with the former medical attendant should be proposed. Consultations in difficult cases should always be recommended; and the physician called for that purpose should always pay the greatest degree of respect to the practitioner first employed, and allow him the privilege of delivering all the directions agreed upon.

Rule 5. When one physician is called to visit the patient of another in his absence, or during short indisposition, he should not manifest a wish to continue his attendance any longer than the physician first called on should be able to resume the charge of the case, unless a continuance of his services should be expressly wished by the patient or his friends.

Rule 6. The junior physician in attendance should always deliver his opinion first, the others according to seniority, or in the order of attendance, and a majority should decide; but in event of a tie, the physician first in attendance should give the casting vote in regard to the future treatment, and to him should be entrusted the future management of the case, unless the patient or his relatives should object to his being continued.

Rule 7. Although the possession of a diploma honorably acquired, furnishes presumptive evidence of professional ability, and entitles its possessor to pre-eminence in the profession, yet the want of it should not exclude practitioners of experience and sound judgment, from the fellowship and respect of the regular graduate.

Rule 8. In consultation, punctuality in meeting at the same hour should be strictly observed; but the physician who first arrives should wait a reasonable length of time for the arrival of others. A minute examination of the patient, however, should not take place, until one or more of the medical attendants are present, except in cases of emergency. All subsequent visits should, if practicable, be made by mutual agreement, and no medical discussion should take place in the presence of the patient.

Rule 9. Attendance on members of the profession or their families should always be gratuitous, but they should not be officiously obtruded. Should the circumstances of the medical practitioner indisposed enable him to make a recompense for medical services rendered to himself, his wife or family, it is his duty to do so, especially if he resides at a distance.

Rule 10. When one medical practitioner is called to visit a patient whose recovery has been despaired of by the physician first in attendance, and the disease should afterwards terminate fatally under his management, he should avoid insinuating to the friends of the deceased, that if he had been called a day or a few hours sooner, he could have effected a cure. Such a course of conduct is reprehensible, and empirical in the extreme, and in the event of the patient's recovery, such a person should not assume all the credit, as the case might have been partly effected by the medicine prescribed before he took charge of the case.

Rule 11. The use of nostrums and quack medicines should be discouraged by the faculty, as degrading to the profession, injurious to the health, and often destructive of life. Should patients laboring under chronic complaints obstinately determine

to have recourse to them, a reasonable degree of indulgence should be allowed them by the physician; but it is his sacred duty to warn them of the fallacy of their expectations, the dangers of the experiment, and the necessity of strict attention to the effect produced by them, in order that their bad effects, if any, should be timely obviated.

Rule 12. No physician should either by practice or example, contribute to the circulation of a secret nostrum, whether it be his own invention, exclusive property, or that of another. For if it be of real value, its concealment is inconsistent with beneficence and professional liberality, and if mystery alone gives it value and importance, such craft implies either disgraceful ignorance or fraudulent avarice.

Rule 13. In all cases where diversity of opinion and opposition of interest give rise to controversy or contention between two or more members of the profession, the decision should be referred to a sufficient number of physicians, as they are frequently the only persons in the community capable of properly estimating the merits of the dispute. But neither the subject litigated, nor the decision thereon should be communicated to the public, as individual reputation might suffer, and the reputation of the profession generally be injured.

Rule 14. A wealthy physician, or one retired from practice, should refuse to give gratuitous advice, unless the danger of the case (the absence of the practicing physician) or the poverty of the patient, should warrant him in so doing. In all cases where he may be preferred, he should recommend a consultation with some one in active practice. This rule should be strictly observed, as a contrary course is gratuitously depriving active industry of its proper reward.

Rule 15. When a physician is called on suddenly to visit the patient of another, in consequence of some unexpected or alarming change in the symptoms, he should adopt a temporary treatment suited to present circumstances. He is not warranted in interfering afterwards, unless requested to take charge of the case, when he should propose an immediate consultation with the physician previously employed.

Rule 16. When from any circumstance unforeseen at the time, rendering it impossible for a physician to meet his appointments with very ill or dangerous cases, he should call on some respectable practitioner and request him to visit the case. The physician paying such visit making no charge against the patient, but allow the attending physician to make all the charges.

Rule 17. When a physician calls a counseling brother in a case he deems critical, without the consent or advice of the patient or his friends, but strictly with his own desire and wishes, the consulting physician in such cases should not make a

charge specially, but leave it optional with the one attending, who should feel himself bound to remunerate him in certain cases, viz., when it is at a distance, and the patient being able to meet fully all claims against him.

Rule 18. Attendance on clergymen who live by the ministry, should always be gratuitous unless the clergyman is in the habit of encouraging quackery, by his certificates, or any other means, and in this case, it shall be optional with the physician to render a bill, or not.

Rule 19. A member who violates any of the rules of this code, shall be liable to expulsion on conviction thereof.

(To be continued in November Number)

REPORT OF COMMITTEE ON ARRANGEMENTS, DES MOINES SESSION, 1920

Receipts

Chamber of Commerce.....	\$ 180.00	
Exhibitors	1,135.00	
Banquet tickets	576.00	
Iowa State Medical Society.....	27.30	\$1,918.30

Disbursements

Hotel Ft. Des Moines.....	\$ 150.00
Hotel Ft. Des Moines banquet	
396 plates	1,188.00
Hotel Savery, 75 teas.....	30.00
Music—Male Quartette	50.00
Music—Mrs. May and accompanist	30.00
Music—Arcule Sheasby, violinist...	20.00
Music—Lenore Mudge and accompanist	10.00
Music—Misses Evans and Gray, vaudeville	60.00
Music—Miss Secvers, harpist.....	15.00
Music—Miss Wcrblosky, dancer....	25.00
McNerneys, cigars and cigarettes	38.50
Monroe Lingle, ticket seller.....	5.00
D. E. Moon Printing Co.....	1.50
Flowers	10.00
Stationery	9.50
Stenographer and typewriter.....	10.00
Postage	4.50
Drafting floor plans.....	12.95
G. E. Iseminger.....	6.00
Telegrams and telephone.....	2.87
Miscellaneous	9.48

Total	\$1,688.30	
Balance on hand.....	230.00	\$1,918.30

Respectfully submitted,
Arrangement Committee—

Thos. F. Duhigg,
Chairman.

The Journal of the Iowa State Medical Society

D. S. FAIRCHILD, Editor.....Clinton, Iowa

Publication Committee

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SUBSCRIPTION \$2.50 PER YEAR

Books for review and society notes, to Dr. D. S. Fairchild, Clinton. All applications and contracts for advertising to Dr. T. B. Throckmorton, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. X

October 15, 1920

No. 10

INCREASE IN THE COST OF MEDICAL JOURNALS IN ENGLAND

Taking the British Medical Journal (official organ of the British Medical profession) as an example we find that the estimated deficit for 1920 will not be far from \$17,000.

The Council insists that there shall be no decrease in expenses in carrying on the professional and economic activities, otherwise there will be a decline in medical and professional interests, both the interests of the public and profession should be conserved.

The Journal of the British Medical Association, like our own Journal of the American Medical Association, and our State Journals, in lesser degree, is an agency not only for the publication of important medical papers, but an agency for the purposes of organization, and the holding together of the profession but co-ordinating the interest of public health and welfare, and the individual interests of the medical profession. It would be disastrous in the interests of economy for the above mentioned journals to reduce their activities. Much better would it be to increase the subscription price.

In the United States the difficulties have not been so great. In only a few instances has there been an increase in the subscription price but the difficulties are increasing. The future is so uncertain that no publishing house is willing to make contracts for the future and the cost of

publication is liable to increase rather than decrease.

The subscription price of the British Medical Journal prior to 1903 was twenty-one shillings. In 1903 it was increased to twenty-five shillings. In 1913 to two pounds and two shillings and it is to be increased 50 per cent. This increase will not probably affect American subscribers as we have paid \$15 per year for 1919-1920.

THE MEDICAL PROFESSION AS A STATE SERVICE

Iowa in the Front Line in This Respect

A paper in the Scientific Monthly for September, 1920, by Dr. D. Fraser Harris, entitled "The Medical and Allied Professions as a State Service" brings to my attention the interesting fact that Iowa is in the front line of progress, with its ably managed State Board of Health, its Hygienic Laboratory, its State Board of Medical Examiners, its Department of Vital Statistics and its policy of Hotel Inspection.

The last General Assembly went one step farther toward the goal of Public Safety by the creation of a Medical Department of the Iowa State Library, the object of which is, briefly stated, the creation and building up of a department of public service which shall render valuable aid to the citizens of Iowa, through the medical profession, in some measure commensurate to the service rendered the public by the law department through the state courts and the bar of Iowa.

The plan of service contemplated by the projectors of the new Medical Department is in one respect unique in the history of medical libraries. The lawyer retained in an important case can take time to "camp down" in the State Law Library and work up his case, either under pressure or at his leisure; but the physician, or surgeon, cannot well leave his practice for even a day to consult the reports and authorities in a single case. Even if he could take the time, the case in hand might be too serious to admit of delay.

From long association with the State's Traveling Library—with its loaning system extending to every county in Iowa—I conceived the idea of utilizing the system in the proposed Medical Department. Presenting my scheme of utilization to my fellow State Librarians in conference at Washington, D. C., a few years ago, I found it met with their enthusiastic approval, and was urged to try it out in Iowa and, later, report the measure of success it should attain. I found that nearly every state library and large reference li-

brary in the country had its problem in the shape of collections of medical works which remained on the shelves practically unused, with the certainty that new purchases would share the same fate. The traveling library plan proposed would measurably solve the problem.

In the conference referred to, a valid objection was raised namely; that it would be unsafe to loan, through the mails or otherwise, the library's serial volumes, as the loss of a single volume would break the set.

Another valid objection was raised, namely: that, even if safety were reasonably guaranteed—by insurance or registration—the expense of mailing, or expressing, a case of medical works, or even a single thick quarto volume, would in many cases be prohibitive. The information desired would probably be contained in only a few pages of the volume, or volumes, desired.

My experience in borrowing for local physicians and surgeons—notably Drs. Fay and Steindler—enabled me to meet both these objections. I had found on application for temporary loans, to Dr. Andrews of the John Crerar Library, Chicago, that the Doctor had harnessed photography to the service of his library. In response to my requests for loans, I would receive a courteous letter informing me that it was not deemed wise to loan books which might be called for at any time, or volumes which if lost could not be replaced, and so, to avoid risk of loss and, too, the expense of transmission, if I would indicate the article, or articles, desired, the pages containing them would be photographed upon thin cardboard and mailed to me, the only expense attending the process being the time consumed in making the impressions—a small expense at most—the sheets of cardboard to become the property of the party to whom they are sent. I found that Dr. Fay's secretary, Mrs. Luginbuhl, had a thorough filing system in which these sheets were included for possible future reference.

Acting on this suggestion several years ago, I asked the executive council to purchase a Cinematograph, then anticipating the creation of a Medical Department. This machine conveniently arranged for photographing book-pages, is now at my disposal, thus disposing of all the objections raised by my library associates.

But there remained the one thing needful in every library: the librarian—not a mere book-handler and cataloger, but one who knows where to find what is wanted, and, given a subject, can supply the desired information. I am happy to be able to state that after several months devoted to the scientific cataloging of several thousand

books and periodicals, we are now ready to supply the wants of the profession. On the first of October Miss Margaret Brinton, Medical Librarian of Yale University Library, will enter upon her duties as librarian of the Medical Department of the Iowa State Library. Miss Brinton comes with the strongest recommendations from Yale and from the Leland Stanford University of California, and I take pleasure in informing the readers of the Journal that, with Miss Brinton's trained assistance, we will soon be able to do much to justify the hopes of the State Medical Society and the action of the last General Assembly, by responding to calls for assistance in the way of information, from members and students of the medical profession, and we trust that all who would avail themselves of the service offered by the state will feel free to address the Medical Department, State Library, Des Moines, making their wants known or making any inquiries which occasion may suggest. If the newly organized department is unable to supply a want, or satisfactorily answer an inquiry, the librarian will frankly say so. Of course it will take time to make the new service wholly satisfactory: all we dare hope is that with every recurring year it may more nearly approach completeness.

State Library, Sept. 10, 1920.

JOHNSON BRIGHAM,
State Librarian.

"THE RETREAT"

Recently we had the pleasure of visiting Dr. Hill's Sanitarium for the treatment of nervous patients.

Many years ago Mr. Callanan, a successful Des Moines capitalist, had the choice of beautiful locations for a home. When at last the owner was called upon to render his last account, the property came into the market and Dr. Hill and Dr. Doolittle with foresight purchased the home with the view of founding a retreat for nervous cases. Des Moines already the center of a large population, promised much for the future.

The need of a hospital for the care of private nervous patients in accordance with modern methods was acute. Both Dr. Hill and Dr. Doolittle had spent their lives in the treatment of disordered minds and were peculiarly qualified for the work. The enterprise was a success from the first. The forty acres had been fully developed by natural forest and by cultivation into an area of peculiar beauty and attractiveness almost in the heart of a populous city. The buildings in the old Callanan home were large and com-

modious, constructed with great care, and were easily converted for the purpose Dr. Hill had in mind; a few new buildings were soon needed to meet the needs of a growing institution.

There are now sixty patients cared for under ideal conditions in a country environment in the midst of a large city, next door, with the advantages a city gives. There are many private nervous cases not suitable for a public insane hospital that should be cared for in a private institution with the advantages of being near home and friends.

SURVEY TO BE MADE OF HOSPITALS WHERE EX-SERVICE MEN CAN BE TREATED

To determine the number of hospitals available for the treatment of ex-service men, a recently formed committee to aid disabled soldiers will cooperate with the Bureau of War Risk Insurance in an extensive survey. The new committee is headed by Colonel Henry E. Stimson, former secretary of war.

By next June, it has been estimated, 30,000 men will need medical attention and an attempt will be made to gather them together in government hospitals instead of leaving them in the 900 civil and government institutions where they are now being cared for.

Hospitals used at present are inadequate to meet increasing demands yet because of existing legislation the War Risk Bureau is unable to build new hospitals.

The American Red Cross maintains home service workers in the hospitals where these former service men are being treated. These workers strive, in every way, to relieve the monotony of hospital life for these boys who are fighting to regain their health.

The fourth annual roll call of the Red Cross takes place November 11-25. Reenlist in this organization, and lend your support to the continuation of its work among the suffering.

SPECIAL BULLETIN NO. 663

Note to Editor—Palestine has its first medical journal, published by the Jewish Medical Association, whose members have been greatly stimulated in their work by the American doctors and nurses of the American Zionist Medical Unit, who are teaching them the most modern methods of practice.

Palestine's first medical journal, "Harefooh," (Medicine), has just made its appearance, published by the Jewish Medical Association of Palestine. The journal is a quarterly and its first issue is dedicated to the memory of the Jewish physicians and nurses, who "lay down their lives in the years of upheaval in the Holy Land."

The objects of the medical association, as outlined

in the quarterly are to strengthen and coordinate the medical forces of the country and to collaborate with doctors outside Palestine; to give the medical work a national as well as a humane value; to prepare a native soil for Jewish scientists; and to help in the creation of the Hebrew University.

Medical work in Palestine has advanced rapidly during the past two years, stimulated by the American physicians and nurses with the American Zionist Medical Unit, who have taught the native members of the profession, all the latest ideas in medical work and sanitation. Clinics are held by the American doctors, to demonstrate to the Palestinian doctors, the most modern methods, and lectures are given at regular intervals.

The hospitals and clinics established by the American Zionist Medical Unit in Palestine, are planned as the beginnings of the Medical College of the Hebrew University at Jerusalem, which Prof. Patrick Geddes, noted town planner of the University of Edinburgh, is designing.

ST. FRANCIS HOSPITAL, WATERLOO, IOWA

Names of members selected by the Sisters of St. Francis Hospital for the "Active Staff." Organized July 22, 1920.

Rev. Father Henry, honorary president, moral theology; Dr. T. U. McManus, president; Dr. F. T. Hartman, vice-president and chief internist of staff; Dr. J. E. O'Keefe, secretary-treasurer and chief surgeon of staff; Sister Mary Margaret, assistant superior; Sister Mary Bernadette, R. N., superintendent; Sister Mary Angelica, R. N., auditor and assistant superintendent; Sister Mary Loretta, R. N., pharmacist; Dr. Jos. W. Rowntree, roentgenologist; Dr. W. T. Cluney, pathologist; Dr. H. R. Whitney, genito-urinary branch; Dr. Edward Knittle, ophthalmologist; Dr. A. J. Joynt, oto-rhino-laryngologist; Dr. H. W. Sigworth, gynecologist; Dr. A. A. Hoffman, obstetrician; Dr. C. A. Waterbury, pediatrician; Dr. E. L. Rohlf, orthopedist; Dr. Harry Brown, anesthetist.

All doctors on this staff are kindly requested to become members of the Catholic Hospital Association.

IOWA STATE BOARD OF HEALTH

Des Moines, Iowa, August 3, 1920.

Dear Doctor:

It was formerly the plan to send a patient who had been bitten by a dog having rabies to Iowa City, but since the Pasteur Anti Rabic treatments may be obtained readily and at a reasonably low price, and as the physician, by following directions enclosed with each treatment, can administer the treatment at home just as well as the same can be administered at the laboratories at Iowa City, our laboratories

have ceased administering the treatments at Iowa City.

Therefore, do not send patients to Iowa City to be treated, but follow the instructions given on the enclosed circular.

Read the enclosed circular carefully and it will save you time as well as expense for if you call Iowa City they will instruct you to phone the Iowa State Board of Health office for the treatment to be mailed to you.

Guilford H. Sumner, M.D.

STATE UNIVERSITY MEDICAL NEWS

Dr. Don M. Dickinson

Dr. C. R. Thomas, assistant director of the Student Health Service recently left for an extended visit in the East with stops at Detroit, Michigan, Chatanooga, Tennessee and Baltimore, Maryland.

Earl Watermann, director for health in the Extension Division recently returned from a summer vacation spent in the Green Mountains near Greensboro, Vermont.

Dr. and Mrs. Henry Albert recently left for an extended trip to the Pacific Coast. They will attend the meeting of the American Public Health Association at San Francisco before returning.

Dr. C. S. Grant, president of the State Board of Health recently returned from a trip through the Eastern states.

Dr. W. J. McDonald recently returned from a summer vacation which was spent in the White Mountains of New Hampshire.

Many favorable comments have been received regarding the installation of the course in Public Health Nursing at the University Hospital. The course will be given in two parts; the field work will be given in Cedar Rapids, Iowa, and the laboratory work at the State University. Practical and theoretical work will be carried on at both places and it is expected that graduates from this course will supply the demand from the many Iowa counties that are demanding the services of public health nurses.

In Cedar Rapids the field work will be divided into industrial nursing, school nursing and visiting nursing. In Iowa City the courses will be given in physical examinations and testing, laboratory procedures, state board of health rules and regulations and ethics of nursing.

Dr. H. J. Prentiss, professor of anatomy has gone to Boston to read a paper at the American Society of Prosthetists.

Dr. Edgar M. Medlar, assistant professor of path-

ology and pathologist at the University Hospital recently resigned to become professor of pathology at the University of Tennessee and has left to reside with his family in Memphis.

Miss Irene Woodrill has been appointed dietician at the Children's Hospital.

Dr. Arthur Steindler, professor of orthopedic surgery has returned from a pleasant vacation spent in the Chicago Clinics.

Dr. John B. Gregg, formerly clinical assistant in the department of eye, ear, nose and throat at the University Hospital, dropped in on his friends recently for a short visit.

The eye, ear, nose and throat department of the University Hospital has recently gained another achievement of special merit. For the past two years, a group made up of men representing the department of physics and the clinical department of the eye, ear, nose and throat department have been collaborating on an instrument to detect and register the auditory acuity of persons affected with various diseases of the ears. The second and improved machine is being installed at the University Hospital which is the result of the combined efforts of these scientists. The details of this audiometer were recently given in an article by Dr. L. W. Dean, head of the department.

Miss Lucile Lord, R.N., of the University of Michigan has been appointed supervisor of the Surgery Clinic floor and will assume her duties soon.

One month before the opening of the new school year, there are thirty applications for entrance in the training school for nurses. These applicants are all high school graduates, fifteen of whom also had college training.

One of the features of the enrollment which is gratifying to the authorities of the University Hospital is the very fine type of young women that are being attracted to it for their training.

The exceptional opportunities for the training of nurses at the University Hospital has been recognized by several institutions about the state and recently some of the better of these have filiated their training schools with that of the University Hospital. The Abbott and Mahaska Hospitals of Oska-loosa, the Washington County Hospital of Washington and the Fairfield Hospital of Fairfield have completed arrangements whereby their pupil nurses will spend from four to twelve months in the wards and clinics of the University Hospital to acquire special training and technic in pediatrics, orthopedics, eye, ear, nose, throat and contagious diseases. This gives the University Hospital the advantage of receiving nurses from the other institutions who have

had a large part of their fundamental training and in return gives the other hospitals the advantage of offering in their training schools work of the large surgical clinics of the University Hospital. The greatest advantage of all is no doubt, to the pupil nurses who thus have the opportunity of seeing medical and surgical work carried on under the widely varying conditions and manners of administration.

The health officer of Pella recently notified the State Board of Health that the local board of health there had decided to release vigilance on cases of typhoid fever only after three consecutive stool specimens had failed to show the presence of the typhoid bacilli. This is an enlightened standing on the conduct and control of typhoid fever.

There have been over fifty cases of typhoid fever in Pella within the last few months and the health officer wishes to give residents the benefit of the facilities offered by the State Board of Health laboratories. The State Board of Health has also sent several hundred sets of typhoid vaccine to Pella for combating this outbreak and no bad results have been reported from its use.

Examinations in the State Board of Health laboratories for rabies have been higher than usual during the months of July and August, but these specimens did not show any unusual prevalence of rabies. No human cases have been reported, although a number of specimens were received so badly decomposed that laboratory examination was impossible.

The State Board of Health laboratories at the University are equipped for doing all kinds of laboratory work that have any bearing on public health and the spread of contagious diseases. This service is entirely free to all physicians of the state and its facilities are offered for assistance in a very liberal manner.

President Emeritus McBride has returned to the university after several years of well-deserved work. He will resume his work in botanical research where it was interrupted to take up administrative duties.

The marriage of Dr. J. Boyd of Iowa City and Miss Mildred Engelhardt has been announced. The wedding took place in Oxford, Iowa, which is the bride's home. Dr. Boyd graduated last spring from the medical college and is at present on the staff of the University Hospital.

SUMMARY OF THE YEAR'S WORK FOR THE CONTROL OF VENEREAL DISEASE

Lieut-Col. W. S. Conkling

In addition to the regular routine business of the office the following special work has been accomplished. Personal letters on the various phases of

the venereal problem have been prepared and sent as follows:

Eleven hundred mayors of the cities and towns (two letters); 3600 physicians of the state; 927 clergymen; 2350 druggists and pharmacists; 9600 rural school teachers; 1100 members of the Iowa Manufacturing Association (two letters); county superintendents of schools (two letters); boards of supervisors (two letters); presidents and secretaries of the county medical societies (two letters); farm extension agents, Red Cross workers, sheriffs, county auditors, presidents of women's clubs, superintendents of public schools, rotary clubs, Y. M. C. A.'s and public librarians of practically every section of the state.

Dr. Jeannette F. Throckmorton has visited 70 Iowa cities and towns, has delivered 460 lectures, reaching 66,540 girls and women. Her work has been received in a splendid manner and not a single word of criticism has resulted but many commendatory letters have been received, and it is believed much permanent good has resulted from her work.

The director has visited in an official capacity twenty-six Iowa cities and towns, has visited and addressed the following conventions, or meetings; county superintendents of schools, city superintendents of schools, Iowa league of municipalities, state directors extension of the agricultural college, commercial clubs, rotary clubs, junior chambers of commerce, and others. Articles have been prepared for publication in four issues of the Iowa State Medical Journal (without cost) and other articles have appeared in the Midland schools, and daily papers.

In the "Keeping Fit" campaign the following boys have been reached by lectures, moving pictures, slides or charts; 8,642 in the high schools; 3,280 employed boys of high school age; 24,595 rural boys of high school age. In addition to the above 20,865 girls and 22,590 parents of boys and girls of school age were reached with pamphlets during this campaign. The moving picture "How Life Begins" was shown to over 5,000 school children.

Nine thousand six hundred school teachers were sent literature on sex education in the public school along with a letter relative to the subject, 3,620 teachers responded to the letter and furnished the information requested. Of this number 698 wrote personal letters requesting additional information and complimenting the work of the State Board of Health relative to the question of sex education. Only one letter was received at all discourteous to the program. The total number of pamphlets sent through the mails for the year was 126,552.

The work of the laboratory has been most excellent and during the entire year there has not been a single complaint registered with the director. There were 11,047 Wassermann tests made and 799 gonorrhea tests. There are more physicians constantly availing themselves of the laboratory privileges and it is believed that the laboratory as maintained by the



DR. J. W. OSBORN

Captain Medical Corps United States Army.
Services, twenty-five months, Ft. Riley.

State Board of Health will be one of the big factors in the elimination of venereal disease.

There were 2,920 cases of gonorrhea, 969 cases of syphilis and 115 cases of chancroid reported by the physicians of the state. There are still a considerable number of physicians who are not reporting their cases and a letter is, at the present time, going out to them, inviting their attention to the fact and requesting cooperation in the future. From the replies already received to this letter, it is believed that results will follow.

Clinics are now established in Des Moines, Davenport, Sioux City, Council Bluffs, Clinton, Fort Dodge, Mason City, Marshalltown, Ottumwa, and Grinnell. There have been over 1,200 indigent venereal cases treated in these clinics during the past year. The clinics are all supported by the local community with the exception of medication which is furnished by this department.

The Bureau has spent all of the funds available for the year, but there is at the present time a large amount of printing and medication on hand. The Bureau has also increased the material for exhibit and has purchased the film "How Life Begins" costing \$425, also an Attract-o-Scope for the showing of slides, costing \$193.

The State Board of Health will receive \$13,215.86 from the Federal Government during the next fiscal year which with the \$15,000 state appropriation will make \$28,215.86 available for carrying on the work of venereal disease control in the State of Iowa for the coming year.

At the present time, there is very little, if any, opposition to the law, and many letters complimenting the State Board of Health relative to the campaign against venereal disease have been received. That more could have been accomplished during the year there is no question, but in view of the fact, that this was pioneer work, the director felt that it would be better to proceed rather slowly than to make mistakes. Realizing that by securing and holding the good-will of all concerned more would be accomplished than by having local boards of health, physicians and others antagonistic.

The Bureau is under a deep obligation to Mr. P. E. McClenahan, state superintendent of public instruction, for his earnest cooperation.

The State Y. M. C. A., rotary clubs, women's clubs, and local health authorities have all responded in every way possible.

It is recommended that the work for the ensuing year continue along the same lines as during the past year. It is believed that the educators of the states are beginning to realize that they must take the initiative in the educational side of this problem and this should be encouraged. It is also believed a lecturer should be provided for boys the same as Dr. Throckmorton is doing for the girls; that some arrangements should be made for the establishing of a publicity bureau, and, while it is believed that too much publicity is not advisable, it is felt that a cer-

tain amount of properly censured material should be given to the lay papers of the state.

The above extracts from the annual report of the director, venereal disease control, State Board of Health, for the period July 1, 1919, to June 30, 1920, will give the physicians of the state a greater knowledge of the various problems of this question and a better understanding as to what is being accomplished by the United States Public Health Service and the State Board of Health in the attempt to lessen the havoc to the human race caused by this plague of all plagues.

It is difficult for the average medical man to realize, after all these years of crying "Wolf," that the general public has at last awakened to the realization of the prevalence and seriousness of venereal disease, and that it appreciates the necessity for prompt and efficient medical treatment. The medical profession must know and realize that the above is a fact if they are going to keep abreast of the times.

The World's War, without doubt, was a most potent factor in the advancement of this work. The campaign for the control of venereal disease which was first inaugurated as a war measure has been continued to an extent greater than even the most optimistic could have dreamed, and is now being carried on in every section of the United States.

While certain phases of this problem are purely medical, there is another, which if the results are to be lasting must be given due consideration, viz: proper education of the child upon matters pertaining to sex. This should begin at home but we must first teach the parents how to approach the question. The schools should also give the subject proper consideration not as a special study or course, but as a normal part of physiology, home economics or similar study. It should be realized that in the past educators have made the question of sex conspicuous by leaving it out of all courses of study; but they are now beginning to realize that they must take the initiative and leadership in sex education. In this the medical profession must give moral support and advice.

SOUTHEASTERN IOWA MEDICAL SOCIETY

Change of Date

On account of the meeting of the American College of Physicians and Surgeons and of the Tri-State Medical Society, the regular meeting date of the Southeastern Iowa Medical Society, October 21, has been changed to November 10. The meeting will be held at Ottumwa.

Among the guests will be Dr. Joseph L. Miller, of Chicago, who will present Our Present Day Views Regarding the Etiology and Treatment of Bronchial Asthma; and Dr. O. W. King, of Des Moines, who will talk on Infection of the Prostate and Seminal Vesicles, with particular attention to the production of symptoms elsewhere.

SOCIETY PROCEEDINGS

Van Buren County Medics Hold Annual Picnic

On Tuesday, July 13, the annual picnic of the Van Buren County Medical Association was held at the Wm. Carruthers home at Pittsburg, an ideal place for the outdoor gathering. There were about seventy present—doctors, their families and friends—seven auto loads coming from Ottumwa. In addition to a fine picnic dinner, there was an interesting program as follows: Heart, by Dr. E. T. Edgerly of Ottumwa; Internal Secretions, by Dr. J. F. Herrick of Ottumwa; Early Practice in Van Buren County, by Dr. T. G. McClure of Douds. The officers of the association are: President, Dr. C. N. Stephenson of Milton and secretary, Dr. C. R. Russell of Keosauqua.

Hancock, Kossuth, Cerro Gordo and Winnebago Counties

The Hancock, Kossuth, Cerro Gordo and Winnebago county physicians had a picnic at Pilot Knob Wednesday, July 28th. Following are the names of the doctors who were present: Storr and Newcomer of Mason City, Kennefick and Hartland of Algona, Eiel and Dolmage of Buffalo Center, Lee of Thompson, Missman of Klemme, Dr. and Mrs. Couper and Cole of Britt, Irish and son and Dr. Thompson.

Davis County Medical Association

The Davis County Medical Association held a meeting at the Bloomfield public library Wednesday, July 28. The convention commenced at 10:30 a. m., and at noon the doctors and their wives enjoyed a splendid dinner at the Sax Hotel.

The program held was as follows: President's Address, Dr. W. W. Parker, Floris; Vice President's Address, Dr. R. D. Toben, Bloomfield; A Few Things of Special Interest Gathered from Recent Work Done in New York Hospital, Dr. W. L. Downing, Moulton; Report of Cases, Dr. G. Giles, Bloomfield; Cholecystitis, Dr. E. B. Howell, Ottumwa; Reports of Cases, Dr. C. C. Hedy, Bloomfield; Case Reports, Dr. C. D. Shelton, Bloomfield.

Scott County Medical Society

Dear Doctor:

The occasion has frequently arisen in your daily practice when in connection with obscure or difficult cases you have desired suggestions, advice, consultation or assistance, without knowing precisely where to find the particular kind of help you needed, or it has sometimes been your intention to refer to a case which is out of your line of work to a colleague and you have found yourself uncertain as to which men were qualified and experienced in the subject concerned.

You want your patients who require special attention of any description to remain in hands of legitim-

ate and capable practitioners who are members of the Scott County Medical Society. It has seemed desirable therefore for our members to exchange information as to the nature of their practice and to tabulate such information as to make it readily accessible.

A plan of this kind cannot fail to result in close cooperation and incidently in reducing the opportunities of the questionable practitioner for making inroads upon our lawful field.

We would ask that you carefully read over the list of questions enclosed and carefully answer them and return to the secretary's office.

The facts which you state regarding yourself will be used exactly as you state them and you will be promptly classified in the tabulation.

The information thus collected will be supplied to members of the Scott County Medical Society only. I am

Yours fraternally,
Robert E. Jameson, M.D.,
Secretary.

Davenport, Iowa.

Dear Doctor:

Under the headings tabulated below answer "Yes" or "No" in the blank spaces accordingly as you "Do" or "Do Not" practice the branches named.

Under miscellaneous **Specify** any subject for which space has not otherwise been provided.

Surgery—General.....**Special**—Such as Gynecological, Genito-Urinary, bone, hand and etc. Please specify your special surgery).....

Practice of Medicine—General.....**Special** (Such as: Diagnosis, medical gynecology, nervous and mental, pediatrics, and etc. Please specify your special branch or branches.....

Obstetrics

SPECIAL BRANCHES

Eye, Ear, Nose, Throat.....
Skin.....

Laboratory—General.....**Special** (Please specify)

X-Ray—General.....**Special** (Please specify)

Anesthetics.....Medical Jurisprudence.....

Venereal Diseases.....Insurance Examinations.....

Contract Practice.....

Pre and Post-operative care of surgical cases.....

Miscellaneous—(Specify any branch that is not mentioned above, which you specialize in).....

Signed.....M.D.

Address.....

Office Building.....Rm. No.....

Phone No.....

WAR RECORD

Were you in active service during recent war?.....

If so, please fill out the following form.

Branch of Service?.....

When and where did you enter service?.....

Rank (Promotions, if any?).....
 Organizations to which you have been assigned and
 length of service with each?.....
 Overseas service?.....where and during what
 period?
 Date of discharge?.....
 Are you at present in the M. R. C.?.....
 Additional data (battles, wounds, citations, etc.).....
 Exemption Boards?.....where?.....date?.....
 Name or number of board served on.....

Austin Flint-Cedar Valley Medical Society

Every paper was presented except one. The meeting was much enjoyed for the scientific program and the custom of making this meeting a sort of recreative time by having the program for only one-half day added pleasure to the occasion.

The local profession were complimented for the entertainment supplied. The banquet, dance, boat rides and the reception for the ladies seemd to leave nothing undone to make the meeting pleasurable. It was voted to follow the same plan for the July meeting next year. The November meeting will be held at Waverly, Iowa.

The following officers were elected: President, Dr. A. B. Phillips, Clear Lake, Iowa; vice-president, Dr. A. C. Peters, Burt, Iowa secretary, Dr. W. A. Rohlf, Waverly, Iowa; treasurer, Dr. J. G. Evans, New Hartford, Iowa.

W. A. Rohlf, Sec'y.

Western Surgical Association

At the last meeting of the Western Surgical, the association voted to come to southern California for the 1920 meeting. Los Angeles has been selected as the place of meeting.

This letter is being sent you to remind you of the meeting and to urge you to make your plans for a visit to the Pacific Coast.

The time of meeting will be the first week in December. This will give you ample time to visit California and return home, in time for Christmas. It will be a beautiful time to visit southern California and a good time is promised those who attend.

One afternoon session will be held in Pasadena—affording an opportunity to see the beauties of this famous city. It is hoped that many of the members will plan to bring their wives and make a real holiday trip at this time. It is advised that you secure round trip tickets, reading over one of the southern routes, coming out, and return by one of the northern routes.

Do not miss this opportunity to visit the most fascinating and romantic section of our country—and let us make this one of the most memorable and successful meetings of the Western Surgical Association.

Entertainment Committee—Dr. Chas. D. Lockwood, Chrm., Pasadena, Calif.

MEDICAL NEWS NOTES

In these days of the high cost of living, even professional men must think about a little boost in their income. The latest raise that has been advocated for professional service has been in the case of the doctor, whom a state medical journal says should receive \$5 for each call, pointing out as an argument in favor of increased rate, that practically every other service and commodity have taken a one to two hundred per cent increase, while the price for medical service has in proportion advanced but little.

The matter, however should not be given too serious consideration by local people as Fort Madison doctors are contemplating no raise in their rates despite the fact that it has been pointed out to them that the price of their services has not raised proportionately with the other necessities of life.—Democrat, Ft. Madison.

The Iowa State Representatives of the American College of Surgeons met at Rochester, Minnesota, Tuesday, July 27, to consider plans for the organization of a state clinical meeting to be held in Iowa some time during the current year.

The following executive committee was elected to have charge of the forthcoming meeting:

Chairman, W. W. Pearson, Des Moines; secretary, John C. Rockafellow, Des Moines; counselors, Donald Macrae Jr., Council Bluffs.

This meeting is for the purpose of arranging instructional clinics to be held annually. It is intended to reserve one of the afternoon sessions for the laity, where a speaker of note will present some of the important medical problems of surgery. This will bring to the state a new type of medical meeting, one in which the layman has a part. The education of the public as to their right to receive expert surgical care can come none too soon.

The American College of Surgeons is a fellowship of over four thousand surgeons in the United States and Canada, pledged to give the highest type of surgery to every man, woman and child in need of it. The college has fostered the standardization of hospitals and maintains a staff of representatives in the field visiting hospitals in all parts of the United States and Canada.

Through the efforts of Miss Bodburn, superintendent of the Mahaska Hospital, the local training school for nurses becomes affiliated with the state institution at Iowa City and nurses enrolling at the local institution will get six months of their training at the University Hospital at Iowa City.

Fee bill passed by the Montgomery County Medical Society, July 16, 1920. Day call, 8 a. m. to 8 p. m., \$3; night calls, 8 p. m. to 8 a. m., \$5; country call, same as town call, with additional mileage. Uncomplicated obstetrical cases in town \$25; instrument cases according to the complication. Office visits,

\$1 and up according to the examination. Anaesthetic fee for minor operations, \$10.

Dr. Albert A. Anderson, 1833 E. Ninth street, presented his medical library of 300 volumes to the State General Library in the Historical building, Tuesday.

Valuable volumes for research work for medical students are among the number.

Dr. and Mrs. Anderson will leave in the fall for California where they expect to make their home.

Employment of county physicians who will give their entire time to county health work, doing no private practice, and who will devote particular attention to the health of children in the public schools and to epidemiological cases and preventive medicine is the leading feature of a bill drawn for presentation to the approaching session of the general assembly and sponsored by A. E. Kepford, state tuberculosis lecturer.

The doctors of Clarion and Wright county have adopted a standardization schedule of fees for medical and surgical services. The movement originated with the Iowa State Medical Society and is to be commended for its fairness. That the doctors favor good roads may be fathered from the fact that a double charge is made for calls over bad roads.

The executive committee of the new Des Moines Automobile Club laid plans for a strenuous membership campaign. It will be started by the writing of letters to all organizations of business men in the city with the idea of interesting them in the club. Application blanks will be placed in the show rooms of all automobile dealers.

A platform consisting of four planks was adopted. These define the purpose of the organization as follows:

First—To establish a road information bureau.

Second—To give assistance to highways in improving the condition of the marking of main roads.

Third—To secure legislation to curb thefts of automobiles and to assist members in the recovery of stolen cars.

Fourth—To urge the adoption of consistent traffic regulations and consistent and just enforcement of them.

No general meeting of the club will be held until the membership is near the 2,000 mark. This is expected to be accomplished in about a month.

The medical profession of Decatur county tendered Dr. H. C. Bone of Grand River, who leaves shortly for his home in Texas on a farm, a banquet which was served at the M. E. church in Grand River last Friday evening by the ladies aid of the church. Nearly every physician in Decatur county was present, for they have all held Dr. Bone in the greatest esteem, and he was always ready and willing to

counsel and cooperate with them. Dr. F. A. Bowman of Leon, presided as toastmaster and toasts were responded to by the following: Dr. Enos Mitchell of Grand River on Bone as a Student; Dr. J. W. Robinson of Leon, on Bone as a Practitioner; Dr. J. W. Wailes of Davis City on Bone and Ethics; Dr. J. S. Coontz of Garden Grove, on Bone as a General Practitioner; Dr. G. P. Reed of Davis City, on Why Do I Practice; Dr. B. L. Eiker of Leon, on The Blazed Trail; Dr. O. W. Foxworthy of Leon on behalf of the medical profession of Decatur county then presented Dr. Bone with a handsome gold cane to steady his steps in his declining years, and Dr. Bone responded with emotion. During a residence of nearly half a century in Decatur county Dr. Bone has always enjoyed the personal friendship of all his professional brothers, and they see him leave this county with many feelings of regret.

PERSONAL MENTION

Partnership; Dr. Q. C. Fuller and Dr. Arthur F. Smith of Milford have joined in partnership and will have their offices at the Milford Hospital. Dr. Arthur Smith is a son of Dr. F. J. Smith (retired), formerly professor physiological chemistry Drake University.

Dr. L. L. Bowie of Woodbine has located at Zearing, taking the place made vacant by the death of Dr. Harlow. Dr. Bowie saw service in France, he was at one time connected with the 89th Division.

Dr. W. A. Kauffman of Conrad has located in Marshalltown where he will limit his practice to diseases of the eye, ear, nose and throat.

Dr. Blanche Norton, a graduate of Parsons college in the Class of 1895, was recently decorated by King Alexander of Greece for her work over there. Dr. Norton after graduation from Parsons was principal of the Eldon High School for several years. Later she graduated in medicine from Cornell University in New York.

Lieutenant Lysle C. Howe, M.C., who was a graduate of the Keokuk Medical College has left Fort Sheridan for a regular army assignment at Fort Sam Houston. Lieutenant Howe was the pioneer in the Physio-Therapy department of Fort Sheridan.

Dr. and Mrs. Martin L. Reymert have left the University of Iowa to return to Norway. Dr. Reymert has been at the university for two years, studying first for a year in the department of physiology and then specializing in child welfare work in the Iowa Child Welfare Research Station. He has had an honorary fellowship from the American Scandinavian Foundation.

Capt. C. W. Lyons of Stuart, former Marne physician, has returned home after a year in Red Cross work in Albania, which service he entered at the close of the war. Dr. Lyons gave up his practice to enlist in the medical corps of the American army in 1918, and was connected with hospitals at Neuf-

Chateau, Tours and Le Mons. At his discharge he offered himself for Red Cross service and was sent to Albania in the Balkans, to help combat the scourge of malaria and tuberculosis; his work kept him in Koritza and Tirina. During his year's stay there was almost constant fighting between the Albanians and Italians.

Mr. George L. Lowell of Monticello has given \$10,000 to the aid of the John McDonald Hospital of that city.

Dr. Val T. Doering of Fort Madison has removed to Peoria, Illinois. Dr. Doering holds the position of director of the department of roentgenology and pathology of St. Francis Hospital, Peoria.

Dr. Cornelius N. Bos of Chicago, has located at Osaloosa. Dr. Bos formerly practiced at Pella.

Dr. O. W. McGrew of Grand View has removed to Columbus Junction.

Drs. William and Rosa Lowder of Marengo have just returned from an auto trip through the Eastern states, having traveled over 3,000 miles.

OBITUARY

Dr. G. W. Ramsey, a member of class of 1872 (first class), of the Iowa State College, Ames, died at his home in Independence, July 15, 1920, at the age of seventy-two years.

Dr. J. H. Palmer, one of the pioneer physicians of Fort Dodge, died in a hospital at Des Moines. Death followed an operation for gall-stones. Dr. Palmer was taken to the Des Moines Hospital a week prior to his death.

Dr. Palmer was sixty-eight years of age at the time of his death. He practiced medicine in Fort Dodge since he was a young man. In 1880, when he was but twenty-eight years of age, he was regarded as one of the leading physicians of the city.

Mrs. Mary Heilesen-Nelson was born in Alborg, Denmark, January 28, 1859. In 1869 she accompanied her parents to America settling in Shelby county. After teaching in the public schools, for several years, she went to Europe where she spent several years employed by the S. D. A. General Conference as a missionary secretary.

Upon her return to this country she studied medicine at the State University at Ann Arbor, Michigan, and practiced her profession the remaining years of her life. A large portion of her time she carried on the medical work in the sanitarium at Battle Creek, Michigan, and its branches, where she served on the regular medicine board.

Her last years of work were about Elk Horn, Iowa.

BIRTHS

Born, to Dr. and Mrs. L. E. Shaffer of Davenport, a daughter, June 29, 1920.

MARRIAGES

Dr. Hadley H. Erwin of Hampton and Miss Florence Goodall of Rockford, Iowa.

Dr. John Earl Morgan of Sioux City and Miss Helen Kenny of Iowa City.

Dr. J. Boyd of Iowa City and Miss Mildred Engelhardt of Oxford, Iowa.

Dr. Eugene E. Hubbard of Ripley and Miss Myrtle Ellen Spatz of Adel.

CHANGE IN NAME IDENTIFIES THE WILSON LABORATORIES WITH WILSON & COMPANY

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Although these widely known laboratories have been directed by the same policies and standards maintained by Wilson & Company throughout, it has been shown by frequent inquiries that this fact was not always known to the medical profession, pharmacists and hospitals.

The new name of "The Wilson Laboratories" will make the connection clear. It will signify that the therapeutic agents and animal derivatives bearing this name are not only produced by laboratory processes in strict accordance with the most approved practices; it will also mean that the source of supply is of unvarying dependability.

The standards of selection established by Wilson & Company for their food products, and their facilities for testing and maintaining uniformity, are of distinct advantage in the choice of materials for the Wilson Laboratories.

The laboratories are established in a specially constructed building apart from the Wilson abattoirs. They are particularly equipped for temperature control and preservation.

Every step in the preparation of these organic products is under the direct supervision of a staff of men whose reputation in the field of bio-chemistry is established by achievement.

Medical and surgical supplies labeled with the "Red W" and the name of the Wilson laboratories thus possess the highest degree of uniform quality.

BOOK REVIEWS

THE SURGICAL CLINICS OF CHICAGO

Volume IV, No. 2 (April, 1920), Octavo of 222 Pages, 79 Illustrations. W. B. Saunders Company, 1920. Published Bi-Monthly. Price Per Year, Paper \$12.00, Cloth \$16.00.

This number contains sixteen clinics and group clinics by well known Chicago surgeons. The first is by Dr. A. J. Ochsner who presents a prostatectomy and discusses the various questions connected therewith.

Among the interesting subjects presented is a case reported by Dr. Hugh N. Mackechnic under the title of Silent Appendical Abscess in Children which might easily be overlooked by careless examination but by thoughtful methods should be recognized.

Subdiaphragmatic Abscess is the subject of a clinic by Dr. David C. Straus of Cook County Hospital.

Dr. A. D. Bevan presents his usual list of cases from the abundant material at Presbyterian Hospital.

PRINCIPLES AND PRACTICE OF INFANT FEEDING

By Julius H. Hess, M.D., Professor and Chief of the Department of Pediatrics, University of Illinois College of Medicine; Chief of Pediatric Staff, Cook County Hospital, Etc. Illustrated Second Revised Edition, F. A. Davis Company, 1919. Price \$2.50 Net.

Dr. Hess has become so well known to the medical profession in relation to the care of infants that little need be said of the merits of the book.

This book starts out with the question of metabolism and bacteria of the intestinal tract of the infant and proceeds to part second. Nursing and all the questions relating thereto concerning the mother; then with relation to the infant, followed by mixed feeding and weaning, Nutritional Disturbances in Breast Fed, Feeding in Premature Infants and on to Artificial Feeding including the troubles and complications arising therefrom, the minor and general nutritive disturbances, and the numerous questions in relation to digestion. Parental Infections—Enteral Infections and Nutrition.

The special merits of this book appear to be in the arrangement of the subjects relating to the feeding of infants.

The author has the facts and theories clear in mind and carries the reader logically from one subject to another without waste of space or time, a fact often lost sight of by writers of books.

REGIONAL ANESTHESIA, VICTOR PANCHETS' TECHNIQUE

By B. Sherwood Dunn, M.D., Officer d'Academic; Surgeon (Colonel) Service de Sante Militaire de Paris; Physician to the Cochin Hospital, with 224 Figures in the Text. F. A. Davis Company 1920, Philadelphia.

The advantages of local anesthesia in a certain rather large number of cases have become recognized by a considerable proportion of surgeons, and a number of important books have been written on methods of administration of local anesthesia, Dr. Sherwood-Dunn formerly of Boston and for many years practicing in Paris has rendered the American profession a service by presenting the advantages of Regional Anesthesia as developed by Professor Vic-

tor Panchet and other French surgeons, Dr. Dunn in the first place draws attention to the difference between the Infiltration method as employed by Reclus who developed a widespread interest in local anesthesia in France, and Regional anesthesia which has been so extensively employed by Crile who employs both methods in nearly all his major operations. The author points out the necessity of an exact knowledge of the anatomy and physiology of the nerve supply in order to properly reach the regional nerve supply so as to bring the operative area under anesthetic influence, Dr. Dunn calls attention to the disadvantages of the infiltration methods in the field of operation, a point well taken. After an introductory chapter on the advantages of local anesthesia and the advantages of regional anesthesia over the infiltration method the author presents armamentarium, the solutions used and the general technique.

Commencing with chapter three, the author takes up regional considerations as to nerve supply, and the points of injection of the anesthetic agent. First of the head and neck; the thorax and abdomen; the genito-urinary organs and rectum and finally the extremities.

All the procedures as to injection and operation are fully illustrated. While the operative procedures are not described in the text, they are illustrated to facilitate an understanding of the region to be brought under the influence of anesthesia.

This book is a valuable contribution to local anesthesia and may well form a guide to the practice of surgery.

Report from the Department of Pathology and the Department of Clinical Psychiatry Central Indiana Hospital for the Insane for the year 1915 to 1917, State Printing and Binding.

This report of 684 pages presents a record of the work of the Indiana Insane Hospital in relation to the clinical study and pathologic findings of the patients treated in this institution and will be of interest to those interested in psychiatry.

Report of the Adjutant General of Iowa. For the Biennial Period ending June 30, 1920. Published by the State of Iowa.

MEDICAL CLINICS OF NORTH AMERICA

Volume 3, Number 5. Philadelphia Number (March, 1920). By Philadelphia Interests, Octavo of 325 Pages with 26 Illustrations. W. B. Saunders Company, 1920. Issued Serially, One Volume Every Other Month. Price \$12.00, Cloth \$16.00.

The editor has been peculiarly fortunate in the group of men he has secured in making up this number. After listening to Dr. Deaver on his favorite subject, appendicitis, we come to a group of clinics at the Jefferson Medical College and Hospital. The first is by Dr. Thomas McCrae on low blood-pres-

sure. Dr. McCrae at once warns his audience that blood-pressure readings are not simple matters and are sterile if our investigations go no further. It is observed that low blood-pressure is less well understood than high blood-pressure and then proceeds to point out its significance.

This discussion is followed by a clinic on malignant disease of the lungs by Dr. Elmer H. Funk and on the gall-bladder and ducts by Drs. Martin E. Rehfuess and Dr. Vincent Lyon.

Dr. E. J. C. Beardsley on chronic valvular heart disease and a lecture on ethics, ideals and efficiency in the practice of medicine.

This series is closed by Dr. H. K. Mohler on diabetes in children.

There is also a group of clinics at the University of Pennsylvania by some of the most distinguished clinicians of that institution on similar subjects. Notably by Drs. Stengel, Riesman Landis, Norris and John S. Mauser, Jr.

This is a particularly interesting number.

A NURSE'S HANDBOOK OF OBSTETRICS

By Joseph Brown Cooke, M.D., Fellow of the New York Obstetrical Society, Etc. Ninth Edition, Revised and Enlarged, by Carolyn E. Gray, R.M., Superintendent of City Hospital School of Nursing, Blackwell's Island, and Philip F. Williams, Instructor in Obstetrics School of Medicine, University of Pennsylvania; 189 Illustrations and Four Full Pages in Color. J. B. Lippincott, Philadelphia and London, 1920. Price \$3.00 Net.

The book before us is one of unusual merit. The fact that this is the ninth edition is some evidence of the appreciation in which it is held. The book is divided into twenty-seven chapters; the first six are devoted to anatomy and physiology so far as relates to the subject, after which several chapters are devoted to general subjects in relation to the pregnant woman. Two chapters to the conduct of labor, following which is a chapter on the conduct of labor, in which is pointed out what a nurse may do and what she should not do. As long as obstetrical cases are regarded is emergency cases, the nurse should be fully advised as to what she may be called on to do. In many of our smaller hospitals nurse training is entirely inadequate so far as obstetrics is concerned, hence this chapter should be carefully studied, if not while in training, at least as soon thereafter as possible.

As to analgesia the choice of agent should entirely rest with the physician. Chapter 15, the Management of the Puerperium, should be considered in like manner. Much of the duties herein set forth will fall to the nurse, and her training should be thorough, for the welfare of the patient during this period will in a considerable degree depend on the skill and watchfulness of the nurse.

The Pathology of Pregnancy should be understood by the efficient nurse as she will be the better pre-

pared to co-operate with the physician. The chapter on this subject is quite complete.

The chapter on Operative Delivery is for the physician but for the purpose of co-operation the nurse should be efficiently instructed in what may be necessary. The following three chapters relate to the accidents and complications of child birth and are admirable in their character.

The first care of the infant including the normal infant, the accident, injuries and diseases of the new born are set forth in a well prepared chapter and fully illustrated. Infant feeding is discussed in the three chapters. The book altogether is well adapted as a text-book in a fully organized training school and extremely valuable for post graduate study for nurses whose opportunities have been limited to the rather elementary training in a large number of present day general hospitals.

HANDBOOK OF DISEASES OF THE RECTUM

By Louis J. Hirschman, M.D., F.A.C.S., Vice Chairman, Section on Gastro-enterology and Proctology, A. M. A.; Ex-President American Proctologic Society; Professor of Proctology, Detroit College of Medicine; Proctologist Harper Hospital, Etc. With 223 Illustrations, Mostly Original, and Four Colored Plates, Third Edition Revised and Rewritten. C. V. Mosby Company, St. Louis, 1920. Price \$5.00.

The demand for a new edition had become so great that Dr. Hirschman began work on the third edition, when it was interrupted by his entering the service of the United States with the American Expeditionary Forces.

The first chapter is devoted to a brief consideration of the anatomy of the parts involved. The second and third chapters to symptom of rectal diseases and methods of examination.

The greater part of the book is devoted to the consideration of diseases of the rectum, their diagnosis and treatment. The direct and concise manner of statement particularly appeal to the reader. The rectum is so frequently involved in distressing and disabling diseases that the general surgeon is in duty bound in the interests of his patient and in his own professional interests to study diseases of these tissues with extraordinary care, not only because of their amenability to treatment, but because of the rather frequent appearance of cancer, which if recognized early gives a good prospect of cure. It is sometimes said that cancer of the rectum is inoperable because patients do not present themselves early. This is probably true but as often due to the careless examination of the surgeon and the employment of improper methods of treatment. Patients are to a certain extent less at fault than the doctor. The book through all its pages emphasizes the importance of a thorough examination of the diseased parts and into all the symptoms complained of, and if the teachings are heeded very few cases

of malignancy will be overlooked in its early stages. It has been stated that nearly all cases of rectal disease can be cured or greatly benefited by an exhaustive examination. This is fundamental as a foundation for all treatment. A study of the book before us together with the illustrations will place the general surgeon in possession of such knowledge that he is quite sure of doing the proper thing.

NEW AND NON-OFFICIAL REMEDIES

Containing Descriptions of the Articles Which Stand Accepted by the Council of Pharmacy and Chemistry of the American Medical Association. Published by the Association.

For several years the Council on Pharmacy and Chemistry has published an annual volume on remedies which have been investigated by the Council and have been accepted but which have not been included in the U. S. Pharmacopia.

Many of these remedies have been extensively used by the profession without perhaps a full knowledge of their value. For the purpose of aiding the profession in the selection of these remedies the Council has tested them out and fixed a more definite value than the practitioner could himself place upon them. The general practitioner will find those volumes of distinct value and helpful in no small degree in his daily routine of practice.

ANNUAL REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR 1919

Cloth. Price, Postpaid, 75 Cents. Pages 99. Chicago: American Medical Association, 1920.

This volume contains the reports of the Council which were adopted and authorized for publication during 1919.

These Council reports discuss the preparations which were examined and found not acceptable for New and Non-official Remedies. The present volume gives the reasons why, among others, the following proprietary preparations were not eligible for recognition and description. A number of "Collosol" preparations of the Anglo-French Drug Co., the Proteogens of the Wm. S. Merrell Co., Hormotone of the G. W. Carnrick Co., the much advertised tooth wash (also advised for the treatment of gonorrhea) Lavis, Micajah's Wafers and Micajah's Suppositories, Medinal, Dial "Ciba," Aposthesin. The three last mentioned, it is explained, might be made eligible for New and Non-official Remedies if their manufacturers were to revise their claims and for this reason have been included in the "Described but not Accepted" department of New and Non-official Remedies.

In this volume are also given the reasons why certain preparations, though included in previous editions, are not described in the 1920 edition of New and Nonofficial Remedies.

Of particular interest is a report on acriflavine and proflavine which includes a critical review of the literature of these two new dyes used as antiseptics, and the report on Mercurochrome-220, the new germicide for use in the genitourinary tract which is being investigated at Johns Hopkins by Hugh Young and his associates.

The annual reports of the Council on Pharmacy and Chemistry should find a place in every physician's library, side by side with the annual editions of New and Non-official Remedies.

ARTERIOSCLEROSIS AND HYPERTENSION WITH CHAPTERS ON BLOOD-PRESSURE

By Louis M. Warfield, A.B., M.D., F.A.-C.P.; Formerly Professor of Clinical Medicine, Marquette University Medical School; Chief Physician to Milwaukee County Hospital, Etc. Third Edition. C. V. Mosby Company, St. Louis, 1920. Price \$5.00.

The questions involved in this book are of much interest to physicians and also to the public. It has become quite the habit of many laymen to visit the doctor's office with the statement that he has "high blood-pressure" and if he has any symptoms he attributes them to this fact, and if he has no symptoms, he is looking for them.

It is apparently true that many physicians are using blood-pressure apparatus without a very definite idea of its value or what variations in blood-pressure means.

Without doubt the revelations of the sphygmomanometer is of great clinical value if the conditions are properly studied.

Dr. Warfield has given the subject long and critical study. The conditions are fundamentally arteriosclerosis and hypertension and one of the means of study is the blood-pressure apparatus.

Arteriosclerosis is not in itself a disease but is a degenerative change in the walls of the arteries due to some deeper lying influence. To make the subject clear the author has presented some anatomical facts, and has devoted considerable space to the pathology of arteriosclerosis, and the physiology of the circulation, cardiac irregularities associated with arteriosclerosis, etiology, blood-pressure and the instruments of blood-pressure, the conditions which affect blood-pressure.

A chapter is given to diagnosis and a chapter to treatment.

In this book will be found the relations existing between hypertension, arteriosclerosis and blood-pressure, the value of blood-pressure observations in different forms of disease and to surgical conditions. It should be understood that in the diagnosis of nephritis and other conditions in which blood-pressure observations are employed, that the mere reading of the manometer scale is not alone sufficient but additional studies are needed. We therefore commend this book to such physicians as desire a clear understanding of the subject in the light of present knowledge.



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It is Posterior Pituitary Active Principle in isotonic salt solution and is without preservatives.

$\frac{1}{2}$ c.c. ampoules (small dose) are labeled, "Obstetrical and Surgical".

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Either in an emergency.

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**and other fevers and diseases
prevalent at this season**

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Samples prepaid upon request

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During June the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Non-official Remedies:

- Abbott Laboratories:
Benzyl Benzoate (Abbott).
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Arlington Chemical Company:
Pollen Extracts—Arlco:
Aster
Birch
Cherry
Clover
Corn
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Daisy
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Elm
Goldenglow
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Hickory
June Grass
Locust
Maple
Narcissus
Oak
Orchard Grass
Poplar
Poppy
Red Top
Rose
Rye
Sunflower

- Timothy
Walnut
Willow
Ragweed (Ambrosia trifida)
Ragweed (Ambrosia artemisiaefolia)
Fritzsche Brothers, Inc.:
Benzyl Benzoate (Fritzsche).
Gilliland Laboratories:
Pertussis Bacillus Vaccine.
Diphtheria Toxin-Antitoxin Mixture.
Heyden Chemical Works:
Ichthynat.
Hynson, Westcott & Dunning:
Whole Ovary—H. W. D.
Whole Ovary Tablets—H. W. D. 5 grains.
Lederle Antitoxin Laboratories:
Antipneumococcus Serum (Polyvalent).
Gonococcus Glycerol Vaccine.
Pollen Antigen—Lederle (Fall Type).

During August the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Non-official Remedies:

- Armour & Co.:
Corpus Luteum Tablets—Armour 5 grains.
Diarsenol Co.:
Sodium Diarsenol.
Sodium Diarsenol 0.15 Gm. Ampules.
Sodium Diarsenol 0.3 Gm. Ampules.
Sodium Diarsenol 0.45 Gm. Ampules.
Sodium Diarsenol 0.6 Gm. Ampules.
Sodium Diarsenol 0.75 Gm. Ampules.
Sodium Diarsenol 0.9 Gm. Ampules.

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The Journal of the Iowa State Medical Society

VOL. X

DES MOINES, IOWA, NOVEMBER 15, 1920

No. 11

THE DES MOINES HEALTH CENTER*

A. D. McKINLEY, M.D., Medical Director,
Des Moines

Because the Des Moines Health Center might be misunderstood by some of the physicians of Polk county, and by some others not understood at all, I thought it might be of some interest to you to give a brief, clear outline of what the institution is, its organization, its system and what work is being done there.

Before the Health Center was organized there was a free clinic at the Methodist Hospital; one in Good building, known as the Women's Free Clinic; the Genitourinary Clinic at the Samaritan Hospital; the Tuberculosis Clinic, and the Child Welfare Clinic.

Interested individuals started the Des Moines Health Center movement something over a year ago because they believed it would be to the better interests of the physicians and patients as well, if the free clinics of the city were concentrated into one.

From September 1, 1919 to about January 1, 1920 the Health Center occupied a room in the Polk county court house where only psychological work was done, especially for the Juvenile court. It was originally intended that the Health Center would occupy the third floor of the new municipal court building. This location was not practicable for various reasons, principally because of the fact that the patients could not walk up the three flights of stairs. There is an elevator, but it runs through the jail part and because it is an automatic elevator, patients could not operate it. Therefore, the city council gave the use of a large room in the south end of the basement of the city hall. This large room was partitioned into nine small clinic rooms and one large waiting room.

In these temporary quarters the Health Center opened about January 1, 1920. The Women's Free Clinic, the Tuberculosis Clinic and the Baby

Welfare Clinic were absorbed into the Health Center, but it was thought best to continue the Venereal Clinic at the Samaritan Hospital. The Methodist Hospital, on the other hand, decided to continue to run their clinic independently. The question of permanent quarters is still unsolved. From the report of your committee on the county hospital question you can see that permanent quarters for the Health Center may be established as a part of the county hospital, though there may be some grounds for argument against, as well as for, such an arrangement. However, time and developments will work the matter out satisfactorily.

The Des Moines Health Center is fostered by and is a part of the Welfare Bureau of the Chamber of Commerce. Its board of directors consists of members appointed by various organizations of the city, e. g. Polk County Medical Society, Women's Free Clinical Society, Public Health Nursing Association, City Council, Juvenile Court, Federation of Women's Clubs, the District Dental Association, etc. This board of directors meets quarterly and elects its officers at the annual meeting in April. The executive committee meets every month and conducts such business as may properly come before it. There are two paid psychologists, one of whom, Dr. R. H. Sylvester, is the general director of the Health Center, and the other, Miss Hadley, is his assistant. Besides these two there are seven other paid members of the Health Center staff, comprising two physicians, one dentist, two nurses, one registrar and stenographer, and one woman clerk. The two physicians and the dentist are paid at the rate of \$100 per month for half time. I don't know about the other salaries paid. The attending staff is selected and changed by the general director in conjunction with the executive committee every six months.

The principal object of the Health Center is to take care of the physical defects of the people of Polk county who are financially unable to pay a physician for his services. The Health Center does not aim to do any work outside of the Health

*Read before the Polk County Medical Association, September 28, 1920.

Center. That is, we do not make calls at the patient's home. That part of the work is taken care of by the city and county physicians appointed for that purpose, together with the public health nurses. In this work we feel that we are doing a vast amount of good in remedying physical defects, thus decreasing the number of dependents in our city, county and nation.

Since January 16, 1920, a full schedule of clinics has been in force at the Health Center and it is ardently hoped that they will continue. There is a daily clinic in general medicine, general surgery, head surgery, dentistry and psychology. The Tuberculosis Clinic is held on two days of the week, gynecology and obstetrics four days, pediatrics three days, dermatology two days, gastro-enterology one, nervous one, orthopedic two and x-ray at any time when needed. Each one of these clinics is held by a reputable practitioner of the Polk County Medical Society.

There is, then, a clinic comprising all the special departments of medicine and surgery to which all the poor people of Polk county have access. A clinic patient may come into the Health Center and go through every department if necessary, until all his physical defects are discovered and, if possible, remedied. In other words, the patient has the advantage of consultation, examination, advice and treatment by a specialist in every department in the science of medicine and surgery, and I wish to assure you right here that the medical profession in Des Moines has given us the very best of earnest cooperation in this work.

The medical practitioner has been severely criticized lately as being anything from a profiteer to a pirate. His office rent, his equipment, his cost of living, practically everything has doubled in cost the same as it has with everything else, yet when he raised his fees commensurately he was accused of profiteering. If you went to your grocer, your clothier, your coal dealer and said, "I am a poor man and you should sell me my sugar, my suit of clothes, my coal at its former low price," what answer would you get? He would probably laugh at you and say that the cost of production has gone so high that he is forced to ask the present prices. You can see that the cost of production has gone up with the doctor as well as with every one else and he has to raise his prices correspondingly. The grocer refuses to sell sugar at 5 cents or 10 cents per pound any more, the coal dealer cannot sell you coal at \$4 per ton; yet Doctor Jones gets a call at two or three o'clock in the morning to go down to 1410 S. E. R. R. Avenue, not knowing whether

he is to get any pay for his call or not, and what is more, he goes. As an example in point, Dr. Dilly, received such a call not long ago. He, like all physicians, kind, human, sympathetic, sacrificing, eager to relieve poor suffering humanity, in other words true to type, rushed down to the patient on Scott street at a disagreeable hour in the night, and when he came out of the house after administering relief to the poor sufferer he discovered that his automobile had been stolen. The doctor had to walk back home, and he never was paid for his call, while, on the other hand, it cost him about \$250 to fix up his car after it was recovered, not to mention the inconveniences he was put to by not having his car for a time. The point is, the doctor has been accused of being a profiteer and there isn't another profession in the world that does more for poor suffering humanity by way of doing work for charity than the medical profession, and I am not getting away from my subject—the Health Center—in making this point.

The table at the end of this paper gives an idea of the work that has been done at the Health Center from January 1, 1920 up to and including September 27, 1920. There have been 179 minor operations performed at the Health Center and 77 major operations performed at the City Samaritan Hospital by the Health Center staff. During these nine months there have been 7,619 patients seen at the Health Center. Eighty-one different Des Moines physicians have held clinics there 1207 times and have put in 2350 estimated number of hours of free work which together with operations performed, in dollars and cents, amounts to about \$30,000. In addition to this work the city school physician holds his clinic at the Health Center every day from 11 a. m. to 1 p. m. where he has the advantage of consultation with other medical men in the different specialties. Let me ask you, is there any profession in Des Moines or the United States, outside of the medical profession, doing any more charity work than that? Still they have been accused by some aspiring politicians and others unacquainted with the noble work they are doing, of being profiteers.

The Health Center receives its patients from the Associated Charities, County Superintendent of Schools, Girls' Protective Bureau, Humane Society, Iowa Children's Home Society, Juvenile Court, Municipal Court, Overseer of the Poor, Public School Attendance Officers, Public School Director of Child Labor, Public School Medical Inspector, Public School Nurses, Public

School Supervisor of Ungraded Classes, Public Health Nursing Association, Parent-Teacher Associations, Priscilla Club, Roadside Settlement, Red Cross Home Service, Society of Friendless, Salvation Army, St. Monica's Home, United Jewish Philanthropies, Volunteers of America, Y. M. C. A. and Y. W. C. A., etc.

There is one question that might be asked and that is—What constitutes a clinic patient? The Health Center is not in competition with the doctors and dentists of Polk County, and a very special effort is made to avoid any abuses of the Health Center as a free clinic. The U. S. Bureau of Agriculture has published a scale of estimates showing the amount of income that is necessary for the support of a family. The figures are based on the unit system as shown on the following chart.

SCALE ADOPTED BY U. S. BUREAU OF AGRICULTURE

An adult woman requires .8 as much as an adult man
A boy of 15 to 16 requires .9 " "
A boy of 13 to 14 requires .8 " "
A boy of 12 requires..... .7 " "
A boy of 10 requires..... .6 " "
A girl of 15 to 16 requires .8 " "
A girl of 13 to 14 requires .7 " "
A girl of 10 to 12 requires .6 " "
A child of 6 to 9 requires .5 " "
A child of 2 to 5 requires .4 " "
A child under 2 requires... .3 " "

No. Units	Budget Total Exclusive of Rent	No. Units	Budget Total Exclusive of Rent
1.5	10.79	4.1	24.01
1.6	11.27	4.2	24.49
1.7	11.71	4.3	24.93
1.8	12.34	4.4	25.35
1.9	13.02	4.5	25.80
2.0	13.72	4.6	26.21
2.1	14.41	4.7	26.65
2.2	15.11	4.8	27.09
2.3	15.73	4.9	27.65
2.4	16.42	5.0	28.07
2.5	17.07	5.1	28.35
2.6	17.58	5.2	28.96
2.7	18.40	5.3	29.36
2.8	18.80	5.4	29.67
2.9	19.23	5.5	30.09
3.0	19.70	5.6	30.37
3.1	20.08	5.7	30.67
3.2	20.48	5.8	31.24
3.3	20.34	5.9	31.65
3.4	21.23	6.0	32.10
3.5	21.51	6.1	32.65
3.6	21.93	6.2	32.97
3.7	22.21	6.3	33.40
3.8	22.64	6.4	33.80
3.9	23.19	6.5	34.38
4.0	23.55		

(This schedule was figured out two or three years ago.)

These figures are used as a basis for determining who are clinic patients and who are not. Of course, any extenuating conditions or circumstances which would modify the case are given proper consideration, e. g., the man of the family who represents its earning capacity may be a carpenter and because of infirmities he is unable to work full time; this fact must be considered as an extenuating circumstance. If from the history we are in doubt about the family income, we have recourse to the Associated Charities and Public Health Nursing Association who seek for and give us the desired information.

A few of the patients coming to the Health Center, in order to get the benefits of the institution give us false information. The occupation given and the general appearance of the patient will arouse our suspicion and we investigate. For example, a boy of about twelve years came in for the Head Surgery Clinic. He said he had two brothers, making a family of five, that his father's income was \$20 per week and he was employed by the Hawkeye Tire Co. Having a suspicion he should be earning more than \$20 a week I called up the firm he worked for and asked how much he was paid by them per week. They refused to give me the information, but after telling them who I was and why I wanted the information, they told me that the man was one of their steadiest workmen and at the kind of work he was doing he could easily earn \$7 per day or about \$40 per week. Upon questioning the boy again he said he did not know how much his father earned, but that his mother told him to say \$20 per week.

No patient coming to the Health Center is turned away without an examination. If the financial condition is such that he does not come within our classification as a clinic patient, after his examination and a diagnosis is made, he is told that he is considered financially able to pay his family physician for treatment and that a letter will be sent to his family physician stating that he has been examined at the Health Center and is being referred back to his doctor for treatment, also that the Health Center will be very glad to cooperate with him if he so desires. Of the 7,619 patients about 300 have been referred back to their family physician. In other words less than 4 per cent of the patients examined at the Health Center were not considered clinic patients.

Of late years almost all so-called free clinics

are charging a small fee ranging in different places from 25 cents to \$1 for each time the patient calls at the clinic. Up to the present, it has not been the policy of the Health Center to make any charge. If the patient feels like making a small donation he is at liberty to do so, but he is not asked for it. All our x-ray work is done by a specialist here in the city at cost. Occasionally the financial condition of the patient is such that we feel he should be able to pay this small fee, and he is asked to do so. If his financial condition is such that he is unable to pay, the Health Center pays for the x-ray work.

The laboratory work of the Health Center is, at the present time, done in the city health department situated in the same building because of lack of room for it in our present temporary quarters.

For our patients who need medical or surgical care in a hospital, arrangements have been made with the City Samaritan Hospital where they are taken care of for a very small fee, which is only sufficient to pay the cost of same, e. g. If the patient needs his tonsils removed, and his financial condition is such that he should be able to pay this small fee, we ask him if he can pay the hospital \$3 for the use of the operating room and a bed in the hospital for one day, as this is usually all the time that is necessary for remaining in the hospital following such an operation. If he can, and is willing to pay this \$3 to the hospital, he does so, and the specialist from the Health Center who advised the operation, does the work free of charge. If the patient is financially unable to pay this small hospital fee, he is given the services at the Samaritan Hospital free. If the hospital care requires more than one day, the hospital fee is \$1 per day, providing the patient can pay it. If

he cannot pay it, he gets the hospital service free. The same arrangement holds true in regard to medical cases, except that there is no operating room fee. This again, is very good cooperation from the city hospital.

Not infrequently patients come to the Health Center who need, for example, a tonsillectomy; their financial condition is such that they do not come within our classification as a clinic patient, yet it is very evident that they could not afford to pay the customary fee for an operation and the patient must continue with the handicap of diseased tonsils and adenoids. Now I do not know of a physician in Des Moines who will not do an operation that is needed and accept whatever fee the patient is financially able to pay. We have had several cases of this kind and arranged to have them taken care of.

Only a small stock of the most common drug preparations is kept at the Health Center. It was deemed unwise to carry an extensive stock of drugs and require the services of a registered pharmacist to fill prescriptions. The prescriptions written by the Health Center clinicians are handled in the following manner. Arrangements were made with one of the city's leading druggists to fill these prescriptions at almost cost either to the Health Center or the patient. For example, if from the patient's financial report it is shown that he should be able to pay for his medicine, he pays the druggist the reduced rate arranged for. If the patient cannot even pay for his own medicine, he gets his prescription filled, and the druggist charges the Health Center for it.

It is not the object of the Health Center to foster, nor do we wish to develop pauperism. Therefore, the need of these small fees described above. We find that the patients feel better about it when

DES MOINES HEALTH CENTER

Date	Dental	Gyn. and Obst.	Dermatology	Gastro-Enterology	Head Surgery	Medical	Nervous	Orthopedic	Psychological	Pediatrics	Surgery	Tuberculosis	Total Examinations	Male	Female	Old	New	Total Patients	Total Minor Oper., H. C.
Jan.	127	11	14	3	219	165	12	5	59	48	7	72	760	348	328	279	397	676	21
Feb.	143	17	39	16	424	210	27	23	40	60	66	52	1135	473	534	620	387	1007	21
Mch.	91	15	22	22	429	192	24	32	62	137	68	58	1164	466	569	659	376	1035	31
Apr.	110	9	15	9	303	161	16	40	36	76	51	58	889	356	455	536	275	811	27
May	166	51	20	11	305	139	22	44	31	162	62	60	1033	395	544	603	336	939	13
June	167	39	14	19	221	175	20	26	42	201	124	29	1109	461	548	619	390	1009	23
July	156	32	21	3	155	177	20	43	49	99	184	48	987	376	507	630	253	883	24
Aug.	107	27	19	2	157	96	10	31	16	166	98	13	744	287	403	472	218	690	5
*Sept.	93	14	20	3	125	94	8	21	22	137	62	17	613	234	335	359	210	569	9
Total.....	1160	215	184	88	2338	1409	159	265	357	1086	722	407	8434	3396	4223	4777	2842	7619	179

*September includes only up to the 28th.
77 major operations performed by the Health Center Staff at the City Samaritan Hospital.
Total number of physicians..... 81
Total number of hours (estimated).....2350
Total number of times here.....1207
(In estimating hours—this does not include time by any member of the paid staff, school physician, or hours spent in operating.)

they are paying this small fee, when they can, and it works out better all around.

It has been said that access to general or complete clinics is to be had by either the rich or the poor. For example, the rich can pay for all these clinical advantages, and the poor are eligible to the free clinics, but the middle man is barred from both. Now, I believe it should be one of the objects of the Health Center to overcome such a condition. There are many people in Polk county who are able to pay the family physician for a house call or for an office consultation, but are unable to pay for a series of examinations by the specialists. Therefore, if the family physician could send his patient to the Health Center and vouch for the fact that he is unable to pay for these special examinations, they could be made through the Health Center and thus the Health Center would be a help to the family physician as well as to the patient.

As compared with \$30,000 worth of services contributed by the physicians of Des Moines, the first nine months it cost \$14,827.28, to run the Health Center, which is financed by the Public Welfare Bureau of the Chamber of Commerce. Therefore, when the Public Welfare Bureau solicitors call upon you for a contribution in their drives for funds, you will know that a portion of your contribution is going toward helping in the support of the Health Center.

A few days ago Dr. Clark, a practicing physician from London, England, and who has charge of a government free clinic there as a head surgeon called at the Health Center to investigate and study its system and work. He told us that he had visited all the larger cities of the U. S. and Canada and the Des Moines Health Center is the only one of its kind he had seen any place. Knowledge of the Des Moines Health Center is becoming nation-wide, as is indicated by the increasing numbers of letters received requesting information as to our system and work.

Therefore, gentlemen, you should take great pleasure and pride in knowing that in your Des Moines Health Center you have something, the exact likeness of which there isn't anything in the U. S. and probably in the world.

I haven't touched upon the psychological part of the work at the Health Center, as I believe Dr. Sylvester has read a paper to you upon that part of the work.

THE PRACTICAL VALUE OF CEREBRO-SPINAL FLUID EXAMINATION*

M. G. WOHL, M.D., Omaha, Nebraska

The cerebrospinal fluid constitutes one of the most important secretions of the body. It was not discovered until 1784 when Contugno described its presence in fishes and turtles. It remained for Haller to describe its presence in the spinal canal of man. However, we are indebted to Majendie for the proof of the relationship between the fluid in the spinal canal and that of the ventricles.

The attention of the profession at large was not focused on the practical value of the fluid until 1891 when Quincke described the method of the Lumbar puncture and pointed out its application in practical medicine.

The cerebrospinal fluid, as we mentioned, is of secretory nature; the main source of its formation being the choroid plexus of the ventricles. The choroid plexus is a continuation of Vellum interpositum. It is lined by epithelium and extends into the ventricles.

The fluid from fourth ventricle passes to third through aqueduct of sylvius and from third to lateral ventricle through foramen of Monro. From the ventricle the fluid passes to Subarachnoid of brain through foramina of Majendie and Lushka and from here it passes along posterior aspect of spinal canal. The choroid plexus is impermeable.

I lay emphasis upon the latter since we know that only few foreign substances like chloroform, urothropin and alcohol (the latter was shown by Shottmuller to accumulate in cerebrospinal fluid in even larger amounts than in the blood), pass from blood into cerebrospinal fluid. In diseased conditions, for example, diabetic coma, the cerebrospinal fluid may contain acetone and diacetic acid; in uremia urea; in jaundice bile pigment and in eclampsia lactic acid.

The question of impermeability of choroid plexus is of the greatest importance in diagnosis and treatment of diseases of meninges. Because of the supposed impermeable state of choroid plexus Swift and Ellis have introduced the direct method of intraspinal administration of salvarsanized serum in cerebrospinal syphilis.

This new method of attacking the spirochaetæ in the nervous tissue has been received with great enthusiasm. However, in spite of the many advocates it has, the Swift-Ellis treatment has not proven the panacea of all the syphilitic nervous manifestations.

*Read before Council Bluffs Medical Society, February 8, 1920.

From histological studies of pathology of cerebrospinal syphilis we know that the lesion is of degenerative nature consisting chiefly in local infiltration by lymphocytes and plasma cells of brain and cord particularly around blood-vessels and due to the occlusion of the vessels destruction of parenchymatous tissue follows. (Tabes and paresis.) We also know that the arachnoid membrane is thickened and opaque, due to focal connective tissue formation.

We fail to see how salvarsanized serum introduced intraspinally can reach the lesion that is away from blood-vessels and destroy the spirochaetae that are there; secondly because of the thickened condition of the arachnoid the drug cannot possibly diffuse to cortex (in paresis) the tissue for which medication is most essential.

If the salvarsan does not reach the cerebrospinal system when administered intravenously, because of choroid plexus barrier, how will it get to the central lesion when administered intraspinally?

Our own experience with this method is limited to observation of cases treated by different men, for whom the salvarsanized serum is being prepared in our laboratory, and I dare say that results obtained in paresis and tabes dorsalis are not any better than from the conventional intravenous method.

The interstitial type of cerebrospinal syphilis (meningovascular) because of the superficial location of the lesion is more amenable to this form of treatment; I have recently had the privilege of observing two cases of this type, both of which failed to respond to the conventional intravenous salvarsan and mixed treatment; however, after a course of intraspinal treatment they have made distinct improvement, both clinically and biologically (spinal fluid examination).

In addition to this we would like to call your attention to the auto serum treatment of the betenoid of the pediatrician—Chorea. It is based upon a somewhat similar supposition as the intraspinal treatment of syphilis—namely the direct method of attacking the infection of the nervous system. The results that are forthcoming from Jacobi Children's Department of the German Hospital of New York are so startling that they certainly merit the attention of the profession.

Function—A word as to the function of the cerebrospinal fluid; mechanically it acts as a water pad to the brain, equalizing intracranial pressure and filling out dead spaces such as in epilepsy, where destruction of brain tissue is replaced by glia cells with shrinkage and atrophy of brain substance. That choroid plexus with-

holds harmful material and manufactures antibodies for protection of the nervous system against infection is quite plausible (Goldman and Kafka). Since the active principle of the pituitary gland has been found in the cerebrospinal fluid it is possible that it acts as a distributor of this vital active substance to the nervous system. (Cushing and Goetsch.)

Pressure—The pressure of the spinal fluid is of distinct value—take for instance, edema of the brain where the patient has a number of obscure symptoms—a high reading of pressure will often give us distinct indication for treatment.

There are many instruments on the market to estimate the pressure; however for practical purposes we believe that if the fluid comes out in about forty to fifty drops per minute it is within the range of normal.

The normal pressure registered by a mercury monometer would vary from 4 to 12 mm. or 45 to 90 mm. of water in children and somewhat higher in adults.

Among the normal physiological factors that influence the pressure reading is the position of patient, strain such as coughing, crying, etc. An increased pressure, as we stated, indicates an inflammatory or neoplastic process in cerebrospinal system. There are, however, rare cases, where most destructive changes occur in cerebrospinal system and yet no fluid can be obtained; because the lesion obstructs the communication between the basilar subarachnoid space of brain and that of the spinal canal; the essayist has recently had an opportunity of observing a case of basilar meningitis in a child in whom no fluid could be obtained upon repeated punctures.

To repeat then in altered conditions of cerebrospinal system the amount of fluid is altered.

It behooves us to inquire into the factors that disturb the balance between formation and elimination of the fluid (secretion and absorption) Frazier and Peet of Philadelphia have shown that overactivity of the choroid plexus as result of administration of brain extract gives an increase in spinal fluid. This point is of practical interest since it shows that certain cases of hydrocephalus may be due to an overactive choroid plexus. The above investigators have proved this experimentally and therapeutically. They have found that administration of thyroid will diminish the cerebrospinal fluid to one-third its normal amount and clinically, cases of hydrocephalus due to an overactive choroid plexus have improved considerably under thyroid therapy.

The amount of cerebrospinal fluid and the rapidity of its absorption is in direct proportion to

the total available area of the subarachnoid. Therefore the more of this space that is put out of commission by a lesion (tumor or specific inflammation) the more rapid will be the accumulation of spinal fluid as in obstructive hydrocephalus. For practical purposes the differentiation of the types of hydrocephalus is of importance. This can be accomplished by the administration of phenol sulphophthalen intraspinally and its detection in the urine. In obstructive hydrocephalus the dye fails to appear while in the hypersecretory type phenolsulphophthalein is absorbed by Pacchionion bodies and detected in the urine.

While a good deal of the origin, function and absorption of spinal fluid is shrouded by uncertainty, yet it is common knowledge that a thorough laboratory examination of the spinal fluid is essential in diagnosis, prognosis and treatment of diseases of cerebrospinal system. Let me caution you, however, that like all laboratory procedures it has its limitations and errors. Sole reliance upon the laboratory is to be condemned the same as reliance upon clinical signs alone. The laboratory findings are to be interpreted in conjunction with the clinical symptoms of the case. Only then are we doing most for our patients.

We shall now briefly describe the gradual steps in the examination of spinal fluid as employed in our laboratory and interpret their clinical significance.

1. *Appearance*—The normal spinal fluid has a clear watery color. This appearance is preserved in tuberculous meningitis, poliomyelitis and syphilis of cerebrospinal system. A point of considerable importance is that a "clear fluid" does not rule out meningococcic meningitis and sometimes in pneumococcic meningitis the fluid obtained by lumbar puncture may be clear though there is purulent inflammation located at higher level.

In most of the pneumococcic meningitis and later stages of meningococcic meningitis the fluid is turbid. Turbidity of the fluid may be produced by hemorrhage, either from rupture of meningeal vessel or puncture of blood-vessel while obtaining the fluid. If the hemorrhage is of meningeal origin the spinal fluid will assume a yellowish tint after centrifugation. This is almost pathognomonic of meningeal hemorrhage. If hemorrhage is due to puncture of blood-vessel, the centrifuged fluid is clear while the red blood corpuscles settle to the bottom. A yellow coloration of the fluid that undergoes massive coagulation is observed in a condition known as xanthochromia or Froin syndrome. Froin syndrome was popularized in this country by Mix. It in-

dicates cord compression from whatsoever cause.

2. *Cytology*—The examination of spinal fluid for the number and character of cells is in our judgment one of the most important elements in the study of the fluid. For, an increase in lymphocytes besides the pupillary changes, may be the earliest and the most easily recognizable symptom in syphilis of the nervous system.

A point of importance is that the cells must be counted as soon as possible after withdrawal. We have counted the cells in fluid within ten minutes after removal and when the same fluid was counted from six to twelve hours later the number of cells was materially reduced and in some fluids with previous 15 to 20 cells per cmm. no cells could be found at all.

An increased cell count is the response to meningeal irritation, and to this extent only may be of differential value.

From a normal 5-8 cells per cmm. the number of cells will rise to 100 or more in meningomyelitic and meningoencephalitic types of syphilis. In tabes the cell count is not apt to be high. In paresis the cell count is usually low, 40 to 60. In the early stages of syphilis (primary and secondaries) the spinal fluid shows in a great per cent of cases (67 per cent according to Ravant), some abnormality such as high cells count. Whether the slight increase in the cells in the secondaries is indicative of nervous involvement or is to be looked upon as the result of meningeal irritation by spirochætal toxin similar to meningismus of typhoid or any other acute illness is difficult to state. We are inclined to look upon it as a toxic irritation since comparatively a very small per cent of these patients show clinical evidence of central nervous involvement.

The cell that is increased in syphilis is the lymphocyte.

An increase in the lymphocytes of the spinal fluid is also observed in tubercular meningitis, and in the paralytic stage of poliomyelitis. In pneumococcic, streptococcic, and later stages of meningococcic meningitis the polymorphonuclears are increased. With improvement they are replaced by lymphocytes.

3. *Protein Content*—Normally the cerebrospinal fluid has only a trace of globulin and no albumen. However an increase in protein indicates invariably acute or chronic disease. The protein content in cerebrospinal fluid indicates irritation of nervous tissue with increased vascular permeability. A simple bedside test for globulin consists in shaking a test tube half filled with spinal fluid and if the foam that is formed

persists for half to one hour, it indicates an increase in protein.

Among the other tests the Ross-Jones and Pandy are the tests of choice. In tabes and paresis the globulin is positive in 85 to 95 per cent of the cases. In purely vascular and meningeal types it is less frequently found.

An increase in globulin is also observed in acute meningitides of non-syphilitic nature.

4. *Wassermann Test*—It would hardly be justifiable at this time to go into the philosophy or technic of the reaction. However let me emphasize that in any case with a suspicion of syphilitic involvement of cerebrospinal system a Wassermann on the blood is not sufficient. We have seen time and again a negative Wassermann on the blood and strongly positive on the spinal fluid. Two years ago in a paper read before the Nebraska State Medical Society, we brought out the point, that a surgical lesion that is sufficiently large to produce symptoms must have a strong positive Wassermann of the blood, if it is of syphilitic nature.

The same statement applies with equal, if not greater force to cerebrospinal syphilis.

The diagnosis of syphilis of cerebrospinal system should never be made upon less than 100 per cent or a three plus Wassermann.

We have seen a one plus Wassermann occurring in other conditions than syphilis, particularly tumor of the brain and in normal fluid, especially is this true when large quantities of spinal fluid are used for the test. (1 cc.)

In a large percentage of cases of paresis the Wassermann of spinal fluid is positive in very low dilutions. With the increase in the amount of fluid used the percentage of positive reactions will increase.

The same applies to tabes and cerebrospinal syphilis, *i. e.*, a positive reaction is obtained with spinal fluid in quantity of one cc., while the same fluid is negative when tested in small amounts.

The latter is important in differentiating the forms of neurosyphilis. If you get a positive Wassermann reaction with a small quantity of fluid *i. e.*, 0.1 cc., in 95 per cent of cases the diagnosis of paresis will be correct and will be borne out by clinical symptoms and Lange-Colloidal test.

The Lange gold chloride reaction is the most useful test in the diagnosis of syphilis of the cerebrospinal system. Particularly is this true when it comes to a differentiation between paresis and other types of neurosyphilis. The test consists in adding 5 cc. of gold chloride to the spinal fluid

in various dilutions varying from 1:10 to 1:5120; with normal fluid no change in color occurs and is represented by figure zero.

With spinal fluid from cases of paresis, the Gold chloride is precipitated at a maximum and the solution is completely decolorized; complete discolorization is represented by figure 5. Between these two extremes, shadows of color occur running from red blue (1), lilac or purple (2), blue (3), pale or gray blue (4), which numerical values have been assigned. The regularity with which these colors occur in certain conditions is striking. The luetic zone is confined to the first four or five tubes and the color never exceed four, or gray blue. The paretic zone comprises the first four or five tubes, the change of color being of type (5) (colorless). In the meningitic zone—"Verschiebung nach Oben"—the precipitation occurs in higher dilutions.

The Lange test is more constant than the Wassermann and it may, besides the globulin be the only corroborative evidence of the existence of neurosyphilis, as illustrated in the following case.

Mr. Y. (case of Dr. A. Young), patient is forty-five years of age, married, five children, developed optic atrophy with dementia; blood and spinal fluid Wassermann negative. No increase in lymphocytes; globulin marked; colloidal gold test proven positive—typical luetic curve. Denies syphilis. Clinical history suggestive of syphilis.

In conclusion let me urge a closer cooperation between the laboratory worker and the clinician. No laboratory result should be interpreted without a knowledge of clinical picture of the case as the results of the laboratory are only complimentary to those of the clinician, and vice versa. 517-18 City Nat'l Bank Bldg.

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ARTIFICIAL PNEUMOTHORAX*

REPORT OF CASES

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In presenting a brief paper on the subject of artificial pneumothorax, or unilateral lung compression, my main object is to recall to the memory of the busy practitioner that we have in our armamentarium a therapeutic procedure, which, when intelligently used in carefully selected cases of chronic lung disease, will save the lives of from 20 to 30 per cent of our otherwise hopeless ones.

Lung compression has been used or attempted with varying degrees of success during the last two centuries, and, although the principle upon which it was founded was clinically correct, as proven by the results attained today, it usually failed to give the desired results because of the faulty technic used in the application thereof. The method used almost universally today is known as Forlanini's method, but it is only fair to state that the same method was arrived at almost simultaneously and independently by the late Dr. Murphy in about 1900.

The old method in a few words consisted of making a small incision in an interspace down to the parietal pleura. If the lung could be seen gliding up and down beneath this, a small opening was made through the parietal pleura into which a small cannula was inserted, gauze was now packed tightly into the chest incision around the cannula, and the skin sutured tightly over the gauze. Gas, usually nitrogen, was now forced in, until, in the opinion of the operator, unaided by any instrument to measure intrapleural pressure, a sufficient collapse of the lung was attained. Occasionally good results were recorded; but when one considers that it was necessary, in order to get a permanent result, to repeat this procedure at frequent intervals over a period of months, and sometimes years, the reason for its falling into disuse and often disrepute can readily be understood.

Forlanini's or Murphy's method used today consists of two large graduated bottles connected by rubber tubing. One bottle contains a liquid, the other air, nitrogen or oxygen. When the bottle containing liquid is elevated the liquid syphons into the other bottle displacing the gas which flows through tubing into the patient's chest. By the displacement of liquid the number of cc's of air entering the patient's chest can be read off. The instrument has attached to it a manometer

consisting of a U-shaped tube filled with liquid, behind which stands a scale graduated in centimeters. By consulting this the operator is enabled to know where the point of his pneumothorax needle is at any given time during the operation, *i.e.*, whether or not it is still within the chest wall, through the parietal pleura, or into lung tissue, or into a blood-vessel. By studying the manometer the operator is also enabled to read off the degree of pressure negative or positive in centimeters of water produced within the pleural cavity. The danger and inconvenience to the patient is reduced to a negligible quantity by the careful and intelligent use of such an instrument.

As late as the year 1900 artificial pneumothorax was used, as far as I am aware, only in cases of pulmonary tuberculosis, but since then, especially during the last few years its use has been extended to cases of pulmonary abscess, gangrene, hemoptysis, bronchiectasis, and other localized suppurating conditions of the lung, with marked success in a large percentage of the cases. One's success with the treatment, granting that one is familiar with the technic, is in direct ratio to his skill in selecting proper cases for treatment. Some enthusiasts in recent years have gone so far as to advise its use in incipient cases of pulmonary tuberculosis, but this is not sanctioned by more seasoned workers for the reason that the incipient case usually gets well on ordinary good treatment.

In selecting cases for treatment the first question which arises is—Have we a case of pulmonary tuberculosis, or have we an abscess, gangrene or one of the other suppurating conditions of the lung? It is necessary to settle this question first because should we have a serious tuberculous lesion in one lung, calling for special treatment, there is usually a lesser lesion, active or quiescent, in the other lung, which may be fanned into activity by a too rapid or complete compression of the broken lung. On the other hand, pulmonary abscess or gangrene is usually an unilateral affair with little or no danger of lighting up an active process in the sound side, offering a favorable opportunity for fairly rapid and complete compression. If we have a case of pulmonary tuberculosis to deal with; one which has been faithfully tried out on ordinary treatment, but all essential symptoms remaining stationary, or becoming worse, compression may be considered. But here one must decide as to whether or not compression offers a reasonable chance of benefiting the patient. If the disease is serious in both lungs; if there are serious complications present

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such as extensive laryngeal, or intestinal disease, the case is decidedly unfavorable, and would be better off as a rule to be allowed to die peacefully. On the other hand, if the disease is serious in one lung, but short of complete consolidation, with only a slightly active, or a quiescent lesion in the other lung, compression of the diseased lung may be attempted and cautiously proceeded with.

In all cases selected for compression it is important to note the condition of the better lung, so that as the treatment proceeds any unfavorable sign in the better lung might be detected and treatment discontinued before any serious lesion may have been lighted into activity.

In the days when the technic, and the dangers to be avoided, were not so well understood, the usual practice was to give large quantities, one thousand to eighteen hundred cc's of gas at the initial and subsequent compressions, but experience has taught that the best results are obtained by giving three hundred to six hundred cc's at the initial compression, and repeating this on the third, fourth, seventh, tenth, fourteenth, twenty-first and thirty-first days, so that the lung is brought to complete compression, or nearly so, with seven refills during the month. On account of the patient being in a remote place and too ill to remove, I have frequently been obliged to vary the interval and dosage so as to repeat the compression about every seven days, giving eight hundred to one thousand cc's each time until it is complete, then every two to three weeks in order to maintain it.

As I stated in my opening remarks, artificial pneumothorax will in properly selected cases, save or greatly prolong with comfort, the lives of from 20 to 30 per cent of otherwise hopeless cases. This I think is a very conservative estimate. It is evident that 70 to 80 per cent of treated cases derive little or no benefit, but this fact should not deter the physician from making an attempt, if there are any reasonable grounds for doing so. Every operator with any experience, has seen his most favorable selection become progressively worse in spite of treatment. On the other hand, he has seen the case get well, in which he used the treatment as an absolutely last resort with no hope except blind chance. There are several reasons which will explain the failure of many patients to improve. The most frequent of these I think are firm adhesions between the parietal and visceral pleuræ. In some it is impossible to get any gas in whatever. In many, a small quantity of gas can be put in the pleural sac, but it is so small as to have no effect on the symp-

toms, because the part of the lung which is the seat of serious disease is so firmly bound down by firm adhesions as to take no part in the collapse whatever. Practically no case of chronic advanced pulmonary tuberculosis could be found with no adhesions, but very often these are not so firm as not to permit of stretching, or breaking under continuous tension. Other cases fail because of a quiescent focus, becoming active in the other lung; fluid or pus may develop, or the patient may be so far exhausted as to be incapable of developing a resistance or immunity.

INDUCED PNEUMOTHORAX IN HAEMOPTYSIS

I do not think it is overdoing the point to state that artificial pneumothorax in unilateral hæmoptysis, comes about as near to being a specific for preventing recurrence of the bleeding as one could reasonably wish for. It is necessary, as in other classes of cases, to consider the condition of the other lung before deciding upon its use, and the amount of gas to be given at the initial dose. It is necessary also before making any rash promises to the patient and his friends to remember that the bleeding lung might not be compressible, and of course, in such a case, little or no benefit could be expected. But in cases where the gas can be gotten in on the bleeding side, it is amazing, both to doctor and patient, how promptly the bleeding will stop, and remain so, even after the patient is allowed a liberal diet, and permitted to move around. The initial dose in these cases is of necessity much larger than in the non-hæmorrhagic, the amount given being from one thousand to eighteen hundred cc's depending upon the condition of the other lung, and the seriousness of the case. Great care must be used in deciding which is the bleeding lung, because to compress the non-bleeding side would be equivalent to adding oil to the flame. If the doctor can auscultate the chest during or shortly after the hæmoptysis no doubt will be entertained on this point, as the bubbling rales in the neighborhood of the bleeding point will indicate the side.

PRINCIPLES UPON WHICH PNEUMOTHORAX TREATMENT IS BASED

The principles involved here are practically the same as in all surgery, namely, rest and drainage to the injured part.

Compression puts the injured lung gradually at rest and this should be as rapidly as the other lung can compensate and take up the added burden. As the lung collapses, the circulation of the lymph and blood through that lung is greatly lessened, and this means diminished absorption of

toxins into the circulation, with a corresponding diminution of the toxic symptoms. As the lung gradually becomes at rest, there is a lessening of pathologic activity which means diminished production of toxins, so that diminished absorption and production go hand in hand.

Drainage also is more complete. It is well before giving the treatment in ulcerative cases to warn the patient and friends that during the first twenty-four hours following the first few treatments that there may be a marked increase of sputum coughed up. This is a direct result of squeezing the lung. Free drainage, as every doctor knows, is one of the first principles of surgery, as it means decreased absorption of toxins.

In successful cases one may ask what course to expect a case to follow if it behaves normally. Dr. Charles L. Minor, Asheville, North Carolina says: "In a perfectly and properly collapsed lung you will find the temperature drops rapidly, although in some nervous and excitable people there is a slight rise at first, followed by a fall later. The cough and expectoration are temporarily increased, while the patient spits out the sputum which is forced out of the collapsing lung, but this is followed by a remarkable and most satisfactory decrease, and very soon all expectoration ceases. The psychic effect upon the patient of his wonderful improvement is splendid. He feels hopeful, and, getting rid of the terrible toxæmia in one or two weeks, he feels like a new man.

"The tiredness which oppressed him disappears; the light of health comes back into his eyes; he is freed from most of his trying symptoms, and has to be carefully watched lest he become too enthusiastic and foolishly overdo. * * * The promptness of the improvement in many cases is one of the wonders of modern therapeutics and can be compared to nothing so well as the effects of the successful use of salvarsan.

"To see a very sick man suddenly changed to one who feels well; to see the racking cough stop; the profuse expectoration, after a temporary increase disappears; to see the fever fall; the weariness leave him; the eyes brighten—is a very delightful experience to any doctor. In the best cases this improvement continues uninterruptedly until the patient is able to return to work."

I will conclude my remarks on the subject by giving very briefly a few case reports taken at random from among a number of successful cases.

Case No. 1. Referred by Dr. C. A. Waterbury, Waterloo, Iowa, August 18, 1917. Patient, male, age thirty-two. Had had some surgery done in the mouth under a general anaesthetic. In a few days

began to feel ill and had high temperature. Suddenly he coughed up a large quantity of pus mixed with blood. In a week or two he resumed his occupation, but still spitting blood and pus. This continued for several months, when, after cranking his car, he had a frank hæmoptysis in the street. Went home and had another, more copious. All of the usual drugs and usual procedures were used intelligently during the next ten days in an effort to stop the bleeding, but to no avail. The bleeding continued at intervals daily in amounts of from a few ounces to a pint for ten days. Patient was now exsanguinated and reduced to a mere shadow of his former self. By physical examination an abscess was located in the middle lobe of the right lung, and pneumothorax induced one thousand cc's given. The bleeding stopped as if a faucet had been turned off. Refills were given every few days to keep the lung completely compressed and allow the abscess to heal, but, after about two months of treatment the patient considered himself cured and refused further treatment. After a slight recurrence of the bleeding the patient returned for treatment which was continued for another six months. He is now perfectly well.

Case No. 2. Referred by Dr. T. F. Thornton, Waterloo, Iowa. Female, age thirty. Clinical diagnosis—abscess at base of right lung. About two months previous to my seeing her, she had had an abdominal operation and soon after this began to cough up large quantities of pus. A rib resection was now done in an attempt to locate and drain the source of the trouble without any benefit, and she was gradually losing ground, as soon as the wound closed pneumothorax was induced using eight hundred cc's of air. In this case I neglected to warn the patient that she would probably cough large quantities of pus and have a sharp rise of temperature. The result was that the husband came in from the country, and demanded to know why we were trying to kill his wife. However, the treatments were continued. After the fifth refill patient left hospital with no symptoms except a slight mucus expectoration, which later on cleared up. She is now well.

Case No. 3. Referred by Dr. Wm. L. Griffin, Charles City, Iowa. Female, age fourteen years. Diagnosis, advanced pulmonary tuberculosis. When I saw this patient first with Dr. Griffin, physical examination showed that the left lung was completely solid to the third interspace and the remainder of the lung infiltrated. She was extremely toxic, could not eat and quite emaciated. Her condition appeared hopeless as she had been faithfully tried on complete rest in bed in the open country air with every effort made to force the feeding. Bowels acted only with large doses of laxatives and enemata. Temperature and pulse moderately high. The right lung showed some infiltration in the apical region but this did not seem active.

Pneumothorax treatment was now decided on, although the case did not appear to be a promising one, as adhesion would probably prevent collapse of

the lung. This case could not be removed to the city and for this reason larger doses at less frequent intervals were decided upon. On June 6 one thousand cc's were given; June 13 seven thousand and fifty cc's. At this time there was a quite noticeable improvement. June 20 six hundred cc's; June 27 seven hundred and fifty cc's. By this time the patient was eating well, and felt much stronger; looked and felt bright and cheerful, whereas, before treatment she was dull and apathetic. She now looks forward to the treatments with a noticeable degree of pleasure and is asking to be allowed out of bed. The bowels move with very small doses of laxative; temperature and pulse normal except for a slight rise of temperature to 99.4 occasionally, and she is gaining in weight and strength. Owing to the age of this patient and the extent and severity of the disease we are by no means convinced that she is going to get well, but judging from her progress during three weeks, she appears very promising.

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THE PSYCHOPATHIC HOSPITAL*

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As our national life becomes more complicated, our country more densely populated, and our individual existences more strenuous, the problems of public health and of mental hygiene take on a new importance. A family or community can no longer be a law unto itself. Our disease is a menace to others and our health a help to them. We know that, among other things, unsanitary living, faulty environment and poor heredity beget poverty, crime, disease and mental deterioration not only in the present but future generations. The prevention of these conditions and the education of the public in such matters has been and always will be largely the duty of the physician. Through his influence educational campaigns are inaugurated, societies formed and laws enacted which gradually improve our general physical and mental health. One of the greatest influences working toward a better condition of mental health, an earlier recognition of mental disease, and a satisfactory means for relieving and preventing morbid mental conditions should be the State Psychopathic Hospital. Iowa will soon have such an institution, and it is essential that we as physicians should know the functions and scope of the work as it should be carried on, so that we will be able to get the fullest benefits from it, both for the individual patient and for society in general.

Psychopathic clinics were developed in Europe

as early as 1865, at which time Griesinger was appointed director of a psychopathic clinic in connection with the University of Berlin, and it has been largely through the influence of such clinics both at home and abroad that investigation and research in psychiatry have been encouraged and stimulated. The establishment of the Pathological Institute of New York State Hospitals in 1895 and the development of and increased interest in the laboratory work in our various state hospitals were forerunners of this kind of work in the United States.

Early in the year 1906 the State Psychopathic Hospital at the University of Michigan was opened for patients. It is the pioneer institution of its kind in this country, is doing admirable work, and is a model institution of its particular type. Its functions are fivefold: (1) Observation and treatment of borderline and mild mental patients. (2) Intensive laboratory work, including Wassermann and other pathological work for all the Michigan State Hospitals. (3) Out-patient service with clinics in Detroit and other population centers where prospective patients may be gotten in touch with and those not needing hospital care can also be assisted. (4) Instruction of students in the Medical School of the State University in mental diseases. (5) Advisory supervision of scientific work in the State Hospitals for the Insane.

The Henry Phipps Psychiatric Clinic is connected with the Johns Hopkins Hospital in Baltimore, and was opened in 1914. No expense was spared in its building and arrangement for the care of some ninety patients who are very carefully selected and may come from any part of the country. It lays especial stress on treatment, social service and its teaching function in connection with the Johns Hopkins University Medical School. It is not a public institution in the sense of being a part of the state hospital system.

The Psychopathic Department of Cook County Hospital is a clearing house for the State Insane Hospitals of Illinois and takes care of acute cases developing in the county hospital and in Chicago, and reaches some of the psychoneurotics and the mild mental cases in need of public care; especially those which are likely to recover promptly. In it is located the county court through which insane patients are committed to the state hospitals.

The Department of Public Welfare of the State of Illinois is planning to create a psychopathic institute in Chicago. This institute will be for research and teaching purposes and will be limited to 100 patients. It will be a part of the

*Read at May Meeting Polk County Medical Society.

state's equipment for medical education, and the state alienist will conduct research and give instruction there.

There will also eventually be another institute under the state criminologist for study of behavior difficulties, delinquency and crime, with special emphasis on juvenile cases.

There is a psychopathic department in connection with Bellevue Hospital in New York City for detention and treatment of acute and emergency mental cases. It is essentially a clearing house and also has certain teaching functions.

Having spent three months of the past winter as a member of the medical staff of the psychopathic department of the Boston State Hospital, I shall tell of its work more in detail. The hospital was authorized by the Massachusetts State Legislature in 1909 and was opened for patients in 1912. It is located in Boston, conveniently near the more densely populated districts but in a quiet neighborhood overlooking the Fenway Park and at some distance from the main hospital. It is a five story brick building built in the form of a capital letter E. It has accommodations for 110 patients and the physicians, nurses, psychologists, social service workers, clerks, domestics and other employes necessary for the proper administration of such an institution. There are six wards, three for each sex, which allows for the necessary classification of patients and facilities for caring for them. The two wards for the more disturbed patients of either sex have sound-proof rooms, artificial ventilation, protected windows and continuous baths, so that even this class of patients can be cared for with safety and comfort for themselves as well as the others, without the use of mechanical restraint. There are extensive laboratory facilities where all manner of laboratory examinations are made, a complete roentgenology department, and a well equipped surgery. The out-patient department occupies one wing of the building; and a busy clinic is held there daily under the supervision of the social service workers. This clinic besides being a feeder for the hospital reaches and helps many cases of nervous and mental disease which do not come in as hospital patients. There is an extremely active and efficient syphilis clinic where out-patient department and house cases are studied and receive, largely at state expense, the most up-to-date treatment for late syphilitic manifestations. Massage, hydro- and electro-therapy and occupational therapy are used freely in the hospital. There are games, concerts, a library, pool table and airing courts, both on the roof and on the ground, for such patients as can enjoy and profit by them.

There are two distinct and separate groups of physicians or services. The executive service, headed by the executive superintendent and his two assistants. Their duties are to admit and discharge patients, confer with relatives of patients, look after all medico-legal matters and supervise the business administration.

The medical service, with the director of the hospital at its head, is responsible for the diagnosis, treatment and recommendation for disposition of all patients entering the hospital. There are a chief of staff, several medical assistants, internes, psychologists, social service workers, a historian and nurses in this department. Specialists in surgery, roentgenology and other special fields visit the hospital and perform such work as is necessary.

On being admitted to the hospital, a patient is assigned to a member of the medical staff, who makes a complete mental examination, at the same time putting in requests, on special cards, for such special laboratory work as may seem necessary or advisable. Spinal fluid examinations, which however are done on all patients where there is no definite contraindication, roentgen ray work, blood and urine examinations not in the routine, psychometric examinations, neighborhood and industrial histories are included under this head of special examinations. Spinal punctures are made by members of the medical staff, laboratory work is done by the internes, who are Harvard medical students, outside histories are obtained by the social service workers. Albumin, globulin and Goldsol tests of spinal fluid are made by the internes, but the Wassermanns on both blood and spinal fluid are done outside, a part of each specimen of spinal fluid being sent to the city laboratory, and a part to the Harvard Medical College Laboratory. In the meantime a history of the case has been obtained, physical examination made and routine work on blood and urine done. An admission and daily ward note is made on each patient by the physician in charge of that case, and all new developments noted. All of this matter is put into permanent typewritten form and placed in the patient's folder in the files.

Staff rounds are conducted each morning by the chief of the medical staff. All members of the medical staff are obliged to be present, also the historian, one psychologist, one social worker, and a member of the executive staff is usually present. There are also some students and visitors. All new cases are discussed briefly at this time and suggestions for working out the case made. On the fifth day of a patient's stay and during staff rounds the physician in charge of

the particular case presents it with all the evidence and a definite diagnosis and recommendation for disposition is made if possible.

Staff meeting is held daily at twelve o'clock. This meeting is presided over by the medical director, the medical staff, psychologists and social service workers being present. One obscure, especially interesting or medico-legal case is presented, discussed and diagnosed, and other matters of especial interest are talked over.

There are from six to twelve new admissions each day, and the patients remain in the hospital an average period of ten days. This makes a very active movement of population, and necessitates the adoption of such a plan as outlined above, in order that a thorough investigation and examination of patients be made and a definite and satisfactory diagnosis be arrived at in the short space of time allotted. The accuracy and practical value of such a diagnostic method is attested by the fact that investigation of the subsequent history of patients who can be followed up proves the diagnosis to be correct in a great majority of cases.

The material in the hospital is made use of extensively for clinics for students at Harvard and Tufts medical colleges. The director and chief of staff are on the Harvard faculty, and the chief of the out-patient department is on the Tufts faculty.

About one-half the members of the medical staff are physicians who are taking a post-graduate course in psychiatry, and this feature is fostered and encouraged by the hospital authorities.

There are several ways by which a person may become a patient: (1) by voluntary application and signing of an agreement to abide by the rules of the institution and to give three days' notice of his intention to leave; (2) a physician may have a person committed for ten days observation, by signing the proper form; (3) a police officer may bring a person to the hospital and have him committed for ten days observation by signing suitable papers. This is under the Boston police bill, and allows quick action and proper care in the case of acute or dangerous cases which come to the attention of the police; (4) a judge who before or during the trial of a case, suspects mental trouble in the defendant, may commit him to the hospital for a limited period of observation. There are also provisions for the transfer and permanent commitment of suitable cases to one of the regular state hospitals for the insane.

It will be seen that the above measures take care of certain acute, curable or questionable

cases of mental disease, and that they eliminate the delay in receiving or discharging any suspected person which seems to be inevitable with the ordinary process of commitment to a state hospital. It will also be seen that this is not primarily a clearing house for the state hospitals and that it is not for the definitely insane, who go through the probate court directly to the receiving ward of the state hospital. Cases of delirium tremens are brought here by the police instead of being taken to jail where suitable treatment cannot be given, or to a general hospital where they cannot be properly controlled. Many juvenile delinquents are studied for public and private agencies, their responsibilities defined and proper disposition recommended.

The following case illustrates well one of the functions of the psychopathic hospital. A Harvard student of excellent family and previous character took valuable papers from the Harvard library and held them for ransom. Instead of sending him to the jail, which could readily have been done, or of having a prolonged technical legal battle, he was committed to the Psychopathic Hospital for observation. His case was analyzed, found to be one of early dementia præcox, and the disposition was made easily and promptly.

An act authorizing a state psychopathic hospital at Iowa City in connection with the State University and under the State Board of Education has passed the last General Assembly. The building is to cost \$175,000, and will be especially designed, equipped and administered for the care, observation and treatment of persons who are afflicted with abnormal mental conditions which can probably be remedied by observation, medical or surgical treatment and hospital care, and is not for the definitely insane or chronic cases. The director is to be professor of psychiatry in the State University and will have complete charge of the hospital, with power to select suitable cases and transfer all definitely insane to the proper district state hospital.

There will be four classes of cases. Voluntary private cases. Voluntary public cases. Committed private cases. Committed public cases. The private cases shall be maintained without expense to the state. The public cases will be maintained at state expense. Voluntary cases will be admitted in accordance with regulations to be established later by the Iowa State Board of Education. Persons will be admitted as committed patients as follows: A qualified physician files information with the district or superior court to the effect that the person in question is a suitable

case. The judge appoints a physician to investigate the case and report his findings to the court. A duly authorized and qualified hearing will then be conducted by the county attorney, who has already investigated the person's financial circumstances, and the person to be committed will be entitled to all legal consideration, even including a trial by jury if required.

The above is a brief summary of the more important points in our law. There are detailed instructions as to maintenance and operation of the hospital, financial considerations, and transfer and reports on patients.

The law is a good one and makes an excellent start in the right direction, but a temporary care bill should be added by means of which a physician, court or police officer could send a person in for seven to ten days' observation without recourse to long drawn out, unwieldy and difficult court procedure. Such a bill is a part of the Massachusetts law. It is not abused and takes care of many, otherwise difficult, situations in a manner which is entirely satisfactory.

Having now given you an outline of what has been and is being done in this field, I will summarize the problems and functions of a psychopathic hospital in a state or community as distinguished from those of our already existing and satisfactorily operating state hospitals for the insane.

First and foremost, it should not be a hospital for those persons, who, under present laws, are committed to the state hospitals as insane, but should be reserved for persons suffering from the so-called mild mental disorders of the psychoneurotic type, the higher grades of feeble-mindedness, constitutional psychopathic states, and the incipient cases of dementia præcox, paresis, melancholia, and such conditions in which early treatment, before definite insanity has developed, must be instituted if improvement or recovery is to be expected.

It should be so administered that the people of the above types, who cannot afford private sanatorium treatment, will be glad and anxious to avail themselves of this kind of help.

It should be a place for study and observation of medico-legal cases which fall within the mental disease field, and provision should be made in special wards if possible for the study of delinquency, crime, and the juvenile delinquent, so that this type will not need to be mixed in with the psychiatric cases which are not delinquent or have no court record. It should be the state's re-

search center for all matters relating to mental disease, psychology, social service and mental hygiene problems.

It should house a research laboratory, pathology laboratory, and a central laboratory for all the state hospital Wassermann work, so that the work of the various hospitals may be more closely united, exchange of pathological material encouraged, and uniform Wassermann work done.

It should provide adequate instruction in psychiatry for medical students of the State University, and a certain number of places on the staff should be reserved for the physicians who are desirous of improving their knowledge of mental diseases by means of a limited period of post-graduate work. This feature should be encouraged—a short stay at the hospital would increase any general practitioner's interest in this class of cases. This would be a benefit to the physician, the patient, and society in general.

Out-patient clinics under the supervision of experienced social service workers should be established in the various population centers of the state. These should be visited at stated intervals by members of the hospital staff who would confer with prospective patients, prescribe for patients who do not need hospital care, and supervise the after care of discharged patients from the state hospitals as well as those from the psychopathic hospital. The out-patient departments should be the points of contact between the hospital and the public, and by means of popular lectures, exhibits, pamphlets and other publicity methods should educate the people along mental hygiene lines and familiarize them with the objects of such a hospital.

The hospital should be a clearing house for all people who are subnormal or abnormal mentally and who are yet not subjects for the hospitals for insane, and it should drain the state of all its special psychopathic problems not otherwise provided for, and should cooperate closely with the courts, reformatories, and all charitable institutions and societies which have mental problems to deal with.

Such is the scope of the psychopathic hospital. It will take time to develop all the possibilities and benefits of such an institution, it will call for the earnest support of the medical profession of the state, it will call for new and wise legislation from time to time; it will be expensive, but it will do a great deal for the betterment of the public mental health and for the reduction of insanity and feeble-mindedness and their accompanying crime and poverty.

THE IOWA STATE MEDICAL SOCIETY

(Continued from October Number)

The first session was held on June 19, 1850. The second session in Fairfield on the first Wednesday in May, 1851. From this date to 1867, we have no record of the place of meeting except that the session of 1867 was the fourth meeting in Davenport.

We have No. 12—Volume I—1854, of the Iowa Medical Journal and in the index it is noted that on page 320 an account was given of the meeting of the Iowa State Medical Society.

We pass on to 1867 when the Iowa State Medical Society met at the Council Chamber in Davenport, May 22, 1867 at 10:00 o'clock A. M., the attendance "being fair." The president of the Society, Dr. J. W. H. Baker, took the chair and called the meeting to order. At the request of the president, prayer was then offered by Rev. S. M. Anderson of the Presbyterian Church.

Dr. T. J. Saunders on behalf of the president of the Scott County Medical Society—Dr. T. J. Iles, whose health was impaired—received the delegates from abroad, in the following address of welcome.

Gentlemen of the State Medical Society:

Upon this, our seventeenth anniversary, the duty devolves for the fourth time upon the fraternity of Davenport to extend to you the hand of cordial and sincere greeting.

If any there are in this assemblage, who, half a generation ago, had the honor of being at the first meeting of the State Medical Society of Iowa, the fact, probably, will be recognized, that a comparatively new set of actors occupy the stage, sadly reminding in the words of one of our gifted poets, that

"Art is long and time is fleeting,
And our hearts though stout and brave;
Still, like muffled drums are beating
Funeral marches to the grave."

Though many devoted pilgrims in the ranks of our noble calling have stepped aside and are seen of men no more, yet, the science of medicine remains, and with each succeeding year gathers unfaded laurels. Its votaries of the present day can be numbered by thousands, strong and united, enclosing and exercising as with a giant's power, a large share of the rapidly developing intellectuality of this most remarkable century. He who thinks we are only perpetuating a relic of antiquity, giving it neither vitality, nor form, nor comeliness, in accordance with the spirit of the age, is involved in worse than darkness, respecting our aims and accomplishments.

As living, active, energetic members of the profession, to us, in connection with our brethren throughout our widespread country, comes the duty of sus-

taining and advancing by all means at our command, that prestige of potency which has always attached to the regularly constituted guardians of life and health. With the spirit predominant, of each one casting in his mite, and full of trust that, like bread thrown upon the waters and gathered after many days, beneficial results to our organization shall be reached eventually, let us enter upon the transaction of such business as may come before us; and the hope is fervently entertained that, when the conclusion arrives, the remembrance of your stay with us may be accompanied by no emotion adverse to those of satisfaction and pleasure.

The eighteenth annual session convened in Des Moines, Wednesday, February 5, 1868, Dr. Wm. Watson of Dubuque, president. There were twenty permanent members present and nineteen new members were elected, making a total of thirty-nine members present at the annual session of the Iowa State Medical Society at its first meeting in Des Moines. From Dubuque there was one; Fort Madison, two; Des Moines, seven; Davenport, two; Burlington, two; Ottumwa, two; Keokuk, five; Iowa City, four; Unionville, one; Tama City, one; Blakesburg, one; Winterset, three; Panora, one; Chariton, two; Adel, one; Hartford, one; Durand Station, one; unable to locate two.

The contract was let to Dr. J. C. Hughes to publish the transactions of the meeting for \$108.

Officers elected at the meeting were as follows: President, Dr. Philip Harvey, Burlington; vice-president, Dr. J. W. H. Baker, Davenport; recording secretary, Dr. A. G. Field, Des Moines; corresponding secretary, Dr. J. Williamson, Ottumwa; treasurer, Dr. M. B. Cochran, Davenport; censors, Dr. H. L. Whitman, Des Moines; Dr. Wm. Gutch, Blakesburg; Dr. William Voght, Iowa City; Dr. S. B. Thrall, Ottumwa, and Dr. G. R. Henry, Burlington.

Delegates to the American Medical Association: Drs. J. C. Stowe, Burlington; Wm. Watson, Dubuque; A. G. Field, Des Moines; W. F. Peck, Davenport; U. Steel, Fairfield; J. C. Schrader, Iowa City; Wm. Corns, Tama City; Dr. Hutchinson, Winterset; S. B. Thrall, Ottumwa and J. C. Hughes, Keokuk.

This being the first session of the Iowa State Medical Society held in Des Moines, we take the liberty to abstract some of the most important measures adopted and as far as possible outline the spirit manifested at that time. A little more than fifty years have elapsed and all the actors have passed away, except one—Dr. A. G. Field—who happily remains watchful of the events as they pass and who still has a just appreciation of the accomplishments of the profession at home

and abroad. Such blessings fall to but few, particularly those who have been active participants in professional advancement for more than sixty years.

The Iowa State Medical Society met in the hall of the Good Templars in the City of Des Moines on Wednesday, February 5, 1868, at 10:00 o'clock, A. M. President Wm. Watson of Dubuque in the chair. Prayer was offered by Rev. H. S. De Forest. Dr. H. L. Whitman, president of the Polk County Medical Society "welcomed the members from abroad in an appropriate and well received address."

The afternoon session convened at 2:00 o'clock when President Wm. Watson proceeded to deliver his address. A communication from Dr. M. B. Cochran stated that as treasurer he had in his hands \$231.50 belonging to the Society. The report was referred to a committee consisting of Drs. Williamson, Carpenter and Baker.

The committee on order of business consisting of Drs. W. F. Peck, J. C. Hughes and Wm. Watson recommended "that a bill be drafted to restrain the impositions of quackery in this state; also a bill to prevent criminal abortion." On motion Drs. Wm. Watson, A. C. Moon and W. F. Peck were appointed to draft a bill to restrain quackery, and Drs. Ed. Whinery, Wm. Watson and H. L. Whitman were appointed as a committee to draft a bill to prevent criminal abortion.

The committee reported articles of incorporation and a petition of the Society to the General Assembly, asking that body to recognize the Society as a legally incorporated body.

ARTICLES OF INCORPORATION

Article I. Know all men by these presents: That we, Edward Whinery, J. W. H. Baker, William Watson, Seneca B. Thrall, A. G. Field, and H. L. Whitman, persons of full age, and citizens of the State of Iowa and of the United States, hereby associate ourselves, our associates and successors, for the purposes, hereinafter stated; and become incorporated as a body politic and corporate under the name and style designated below, claiming all the rights, powers, immunities, and privileges, created, granted, and conferred by the virtue of Article Three (3), Chapter Fifty-five (55), of the Revision of 1860.

Article II. The name by which said body corporate or Society shall be known in law is, the Iowa State Medical Society.

Article III. The business and object thereof shall be the promotion and elevation of medical science in the State of Iowa, the advocacy of such measures as will tend to alleviate the sufferings of humanity, improve the health, and protect the lives of the community.

Article IV. The business of the Society shall be

conducted, and its annual meetings held, at Des Moines, Polk County, Iowa.

Article V. The affairs and business of said Society shall be conducted by seven trustees, to be annually elected by the members of said Society, at such time and manner as provided by its by-laws.

Article VI. The names of the trustees of said society for the first year shall be Edward Whinery of Ft. Madison; J. W. H. Baker, of Davenport; William Watson, of Dubuque; S. B. Thrall, of Ottumwa; and A. G. Field, and H. L. Whitman, of Des Moines.

In witness whereof we have here written our names this 6th day of February, A. D., 1868.

First Congressional District, Edward Whinery.

Second Congressional District, J. W. H. Baker.

Third Congressional District, William Watson.

Fourth Congressional District, S. B. Thrall.

Fifth Congressional District, A. G. Field, and H. L. Whitman.

State of Iowa, Polk County, ss.

Before the undersigned, a notary public in and for said county, personally came the above named Edward Whinery, J. W. H. Baker, Wm. Watson, S. B. Thrall, A. G. Field, and identical persons whose names are subscribed to the foregoing certificates of incorporation as corporators, and acknowledged the execution thereof to be their voluntary act and deed, for the purposes therein stated. Witness my hand and notarial seal this 6th day of February, A. D., 1868.

F. M. HUBBELL,

Notary Public, Polk County, Iowa.

Dr. Peck moved that the articles of incorporation, with the petition of members of the Society, be presented to Dr. J. M. Robertson, a member of the state senate, and also a member of this Society, with the request that he would present them before the general assembly, and take such action as is required by law, to render the Society a body corporate according to law—motion carried.

In relation to the publication of the transactions the following resolution was adopted:

Resolved, That the committee on publication be requested to confer with Dr. Hughes, in relation to the practicability of publishing the proceedings of the Iowa State Medical Society, and providing that a reasonable contract can be agreed upon, the committee are authorized to appropriate the requisite amount from the treasury of the Society, not to exceed one hundred and twenty-five dollars.

In compliance with the above resolution, we conferred with Dr. J. C. Hughes, who proposed to publish in the Iowa Medical Journal the proceedings in an acceptable manner, for one dollar and fifty cents per page, at which rate he has caused to be published seventy-two pages of the proceedings of last meeting, amounting to one hundred and eight dollars."

We therefore respectfully recommend that Dr. Hughes be paid the above amount of one hundred

and eight dollars, and that an order on the treasurer be drawn for that amount.

(Signed) A. G. FIELD, Chairman,
J. WILLIAMSON,
A. M. CARPENTER.

At the afternoon session on the last day the following recommendation was adopted in relation to the entertainment of the State Society by the Polk County Medical Society.

It was announced that the members of Polk County Medical Society had provided for an entertainment of the members of the Iowa State Medical Society, to be given at nine o'clock this evening, and tickets of admission were distributed. There being no further time for the report of standing committees, or the appointment of new ones, Dr. Cleaver moved that the president be authorized to appoint, after the adjournment of the meeting, new committees to fill all vacancies that have occurred in the proceedings of this meeting. Carried.

Resolved, That while our thanks are due to the members of the Polk County Medical Society, for the provision for our entertainment on the occasion of this, our first meeting in the City of Des Moines; yet, as we are to continue to meet annually in this city, and as the tendency is to an unnecessary expenditure of money, and to consume time too valuable to be thus employed, we advise them to refrain from such preparations or entertainments in the future.

That the dignity of the profession might be conserved. Dr. J. Williamson offered the following resolution:

Whereas, a member of this Society is engaged in selling a patented instrument known as the Babcock's uterine supporter, in violation to the code of ethics of this Society, and derogatory to professional character. Therefore, resolved that this Society express its disapproval and condemnation of such conduct. Adopted unanimously.

The following named members upon motion were appointed to determine upon a design for, and to procure a seal for the Society before the next annual meeting: Drs. A. G. Field, A. M. Carpenter and Wm. Watson.

The Society placed itself on record in relation to medical education by adopting the following resolution:

Resolved, That the system of medical college instruction agreed upon in the convention in Cincinnati, May 3, 1867, and recommended to the medical colleges throughout the country for their adoption, meets our hearty approval, and we earnestly desire to see the same adopted in every medical college in the United States."

Perhaps the sentiments of the profession in

1868 may best be reflected by quoting a part of the able and interesting address of Dr. Wm. Watson, for many years one of the most aggressive and most conservative members of the Society.

Our Society has done much good by promoting acquaintance and awakening cordial friendship among professional men residing in distant sections of the state, an acquaintance that was of great importance in organizing to perform the part assigned to the profession in the stirring events of the past six years. It can be said without boasting, or fear of contradiction, that the profession of no western state have left a better record, or have been more faithful and untiring in the discharge of duty. The annals of every bloody field chronicle the heroic deeds of Iowa soldiers. So do the records of positions requiring executive ability, judgment, integrity, and professional skill, show a prominent list of names taken from the "Iowa Surgical Staff," while the honored names of Reeder, Witter, McGugin, Fiske, and others are among Iowa's martyred heroes.

The existence of this Society has infused new life into some old, and stimulated the formation of many new, local societies. It has also secured the preservation of the records of many important cases and facts. From a careful examination of the past, with a full appreciation of the difficulties encountered, the results appear eminently satisfactory.

One great difficulty of the past, now partially removed and rapidly disappearing each succeeding year, has been the want of direct, speedy, and economical means of communication between different sections of the state: another has been the migratory character of the meetings, which has resulted in but a limited number of the same men being brought together at successive meetings; yet, notwithstanding these unfavorable influences, it has made substantial progress in the accomplishment of its objects, and every friend of the thorough organization and progress of the profession should give it his cordial support, and determine with renewed energy, that succeeding years shall be characterized by more marked results than the past. As I have remarked, a survey of our present position as a state organization, with a view to its future action and influences, reveals much to stimulate and encourage us. It also discloses well founded claims to sympathy, and assistance in our voluntary labors, the results of which, if judiciously employed, will be of decided benefit to the state.

In addition to the increased and rapidly increasing facilities of communication, the tendency of recent events has been to greatly extend the acquaintance of many members of the profession, and awaken a common interest among those engaged in kindred investigations which cannot fail to excite to increased diligence in observing, and accuracy in recording the results of their observations.

While serious obstacles to our progress have been overcome there are others still existing which require

earnest, continued efforts for their removal. Some of these pertain directly to the profession, and the remedial influence must be exerted directly upon its members, by creating a sentiment among them which shall be sufficiently powerful to bring all who aspire to an honorable position up to its standard of professional integrity. I am aware there are croakers and old fogies who will maintain such expectations are Utopian and never to be realized. I think any intelligent observer who has watched the progress and success of the efforts of the American Medical Association for the past twenty years, will anticipate more favorable results; besides, these croakers are usually those who have seldom attended a meeting, unless it came to their doors, and are not active members of any medical organization. There is another class of difficulties which pertain more directly to the people, and so far as they involve the rights of the uneducated, the afflicted, and the helpless, they are proper subjects for legislative action.

Another subject which is worthy of the attention of our law-makers, is the establishing of some system of collecting and preserving the vital statistics of our state, by a general and uniform registration of births, marriages and deaths, with the essential facts pertaining to each. The importance of such a provision will become more apparent as we increase in population and wealth, and upon the ground of self-interest alone.

Many cases involving this subject already exist in the older states, and many more are sure to arise among our foreign-born citizens. The laws of England determining the descent of property recognizes the right of every child born alive, and our laws on this subject are modeled after theirs.

But independently of the advantage resulting directly or indirectly to individuals, when we reflect that a healthy able-bodied adult population are essentially "the state," and the more perfect and numerous are the models in this respect, among her people, the greater are possessions of the real elements of wealth and power, we shall fully realize that it is the duty of the government to know how nearly her population approaches the highest standard; also, to use every means in her power to promote the most healthy and efficient conditions of her people. The ability to determine clearly the relative fecundity and mortality of her people; the relative proportion of the sexes among her population; the longevity of her citizens; the causes of deaths within her borders; the weight with which each cause of death within her borders; the weight with which each cause of death acts upon different portions of the community, whether considered in relation to age, sex, or condition, or in relation to different sections of her territory; these and many other facts to be derived from the same data are indispensable to a correct application of the principles of social and political economy.

A serious hindrance to the prosperity and more extended usefulness of this Society in the past, has

been the difficulty and expense of publishing the contributions and material collected in the form of an annual volume of transactions. Their present value as a contribution to science would be creditable to the profession, as many unique, interesting, and valuable cases have been reported by members of this Society. The future worth of such contributions in aiding the demonstrations of the healthfulness of our climate, and its peculiar exemption from some types of disease, would be exceeded by their scientific value, which as a state and a people we are under a sacred obligation to contribute to the sum of human knowledge, as a partial recompense for the benefits we derive from the labors of others.

But beyond and aside from this as they would come extensively to the notice of medical men, they would possess a practical value, and exert an influence in adding to the population, intelligence, and wealth of the state far beyond an equal expenditure of money in any other form, and thus gives this Society a strong claim not only on the sympathy but material assistance of the legislature in placing in a permanent form the result of their voluntary labors. The apparent want of a correct understanding and appreciation of the true position of the profession in relation to the real and assumed progress of medical science has often proved a source of annoyance to many of its members. It is true some well-meaning persons are influenced by the common cant, "that the medical profession are opposed to improvement and progress," because they do not at once adopt and endorse every vague theory the visionary and enthusiastic desire to thrust upon them but every candid observer of the progress of medicine cannot fail to note the earnestness of research and cautious reserve with which new theories and novel remedies have been scrutinized before adoption.

Following the eighteenth session of the Iowa State Medical Society held in Des Moines in 1868 when the Society seemed to have reached a period of full development and had become an incorporated body the meetings followed one after another in regular order with only the ordinary disagreements incident to such bodies and which contribute to progress, (the transactions may be found in the published volume), various measures were adopted favoring legislation in the direction of securing a health board organization and certain needful legislation relating to the practice of medicine and the advancement of medical education. These activities bring us to the year 1901.

The fiftieth annual session was held in Davenport, May 15, 16, 17, 1901, and was the beginning of a new era in the history of the Society. On the first day of the session Dr. W. J. Findley of Sac City presented a series of resolutions looking to the organization of auxiliary medical societies by districting the state. The discussion on these

resolutions brought out the fact that a reorganization plan was being considered by the American Medical Association and that it would be desirable for the Iowa State Medical Society to adopt a constitution and by-laws in conformity with that of the national association. A new committee was therefore appointed consisting of Dr. D. S. Fairchild, Clinton, chairman; Dr. W. J. Findley of Sac City and Dr. Van Buren Knott of Sioux City, to report as soon as practicable. At the fifty-first session, 1902, the committee, through its chairman, Dr. D. S. Fairchild, read a preliminary report on constitution and by-laws and stated that it was the general outline of the new constitution, the committee was unable to make a full presentation of the details as the American Medical Association had not completed its plans for uniformity of organization for state societies; and therefore recommended that further consideration of the report be deferred for one year.

The fifty-second annual session convened at Sioux City, April 15, 16, 17, 1903, at which time Dr. Van Buren Knott in the absence of the chairman read the completed constitution and by-laws, which were adopted although objections were urged on the ground that the final draft differed from the preliminary report of the year before. The objections were overruled on the ground that the matter had been before the Society for two years and that action the previous years was deferred pending the completion of certain details which would bring the constitution and by-laws in conformity with the plan matured by the American Medical Association and which had been adopted by many other states.

Following the Sioux City meeting a spirited controversy was maintained regarding the constitution and functions of the House of Delegates, the relation of county societies and the councillor system. It was alleged that the plan was un-American and dangerous to the welfare of the profession depriving members of individual right and was autocratic.

The opposition came largely from those interested in medical politics. During the year six counties withdrew from affiliation with the State Society. At the fifty-third annual session held in Des Moines, May 19, 20, 21, 1904, the question of the legal adoption of the new constitution and by-laws came up on a resolution introduced by former members from Dubuque county and on a referendum vote of the Society the matter was referred to a special committee, which by unanimous vote held that the new constitution was legal and binding. The committee report was

adopted by a vote of two hundred to six.

The fifty-fourth annual session in 1905 convened under the new organization with all the county societies in affiliation except six. In two counties, Dubuque and Clinton, the county societies had incorporated and new societies were organized for State Society affiliation, found it necessary to adopt new names and on application were admitted to State Society membership under the new name. In the course of time the opposition to reorganization ceased to exist except in a few individual instances and the new county organizations were abandoned. The four counties which refused affiliation finally applied for membership and were admitted. The unrest of the opposing members of the State Society found relief by proposing amendments to the constitution and by-laws, but none were adopted which in any material way conflicted with the general plan of organization. The changing conditions and added experience under the new plan made several amendments necessary which were adopted in good spirit.

In 1907 the State Society adopted a plan of legal protection against malpractice suits under the direction of a committee consisting of Dr. D. S. Fairchild, Dr. L. W. Littig, and Dr. J. M. Emmert.

The same committee was authorized to investigate and report a plan of journalizing the proceedings and in 1905 the Society contracted with the editor of the Iowa Medical Journal, Dr. E. E. Dorr, to publish the transaction of the State Society. At the expiration of this contract in 1911 the State Society adopted a journal of its own and elected Dr. D. S. Fairchild of Clinton, editor. The committee above referred to was appointed in 1904 to report on a plan of medical legal protection, a plan of journalizing the papers and transactions of the State Medical Society and in view of the enlargement of the functions of the Society to present new articles of incorporation. It may safely be said that the Iowa State Society is one of the best organized societies in the United States.

IMPLIED PROMISE TO PAY REASONABLE VALUE FOR PHYSICIAN'S SERVICES

In the absence of an express agreement as to amount, the law implies a promise to pay for a physician's services as much as they are reasonable and ordinarily worth on the professional market. Where a physician seeks to recover for such services, he has the burden of proving the value thereof.—*Huntley vs. Geyer*, North Dakota Supreme Court, 175 N. W. 619.

The Journal of the Iowa State Medical Society

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STUDENTS IN AMERICAN MEDICAL SCHOOLS

The number of medical students in the United States during the year ending June 30, 1919, excluding those attending preliminary, special and post-graduate courses, was 13,052, a decrease of 578 as compared with the previous year. Of the total number, 12,259 (93.9 per cent) attended regular colleges, 397 (3 per cent) homeopathic, and 86 (0.7 per cent) eclectic schools, while 310 (2.4 per cent) were enrolled in three "non-descript" colleges, consisting of two semi-osteopathic and one nominally eclectic college. The total number of graduates was 2,656. The number of graduates from the regular colleges was 2,423, less by 31 than in the previous year. The number from the homeopathic colleges was 89, or 25 less than in the previous year; from the eclectic colleges there were 28, or 14 less than in 1918. Of all medical graduates 44.4 per cent held degrees in arts and science, as compared with 38.4 in 1918, 32.5 per cent in 1917, 26.9 per cent in 1916, and 15.3 in 1910. This increase is what was expected from the general adoption by medical schools of the requirement of two years of college work before entrance. Of the 2,423 graduates from regular schools, 1,162, or 48 per cent, had a bachelor's degree in arts or science; of the homeopathic 16, or 18 per cent, and of the eclectic graduates 2, or 7.1 per cent. Of the 116 "non-descripts" not one held such a degree. The number of women studying medicine was 686, being

105 more than in the previous year and 76 more than in 1917. The percentage of women to the whole number of medical students, 5.2, is larger than in any previous year. There were 107 women graduates, one more than in 1918. Of the women matriculants, 66 attended the one medical college for women, while 620 (90.4 per cent) matriculated in the fifty-nine co-educational colleges. From the one woman's college there were 7 graduates, while 100 (93.4 per cent) got their degree from co-educational colleges. The Journal of the American Medical Association attributes this increase of women students in co-educational colleges to the fact that in recent years some of the largest and oldest medical schools in the states—Columbia, Tulane, the University of Pennsylvania, Harvard and Western Reserve University, Ohio—have opened their doors to women. Since June 30, 1918, five colleges have been closed, leaving 85 still in existence. Of these, 76 are regular, 5 homeopathic, 1 eclectic, and 3 non-descript. There is one doctor to every 720 of population in the United States.

The House of Delegates of the Michigan State Medical Society authorized an extension drive for membership during the month of October. We shall watch with interest the result of a move which every state medical society may well imitate. The reasons given will apply to Iowa:

1. Our State Society should include and be representative of all the eligible physicians in Michigan.

2. Organized effort, influence and prestige alone will serve to conserve our individual interests in these days of changing relationship in the social and industrial world.

3. Legislature measures affecting our relationship to the public and our personal prerequisites will be introduced into the legislature this coming session. Our committee, protecting your interests, will exercise greater influence and accomplish desired results if they can exhibit their requests as coming from the entire profession of Michigan.

4. Larger county societies, composed of all the eligible physicians in the county, will accomplish greater results in the respective localities.

Michigan State Medical Society has a membership of 2708—non-members eligible to membership 261.

The Northwestern Druggist to express what it means by the use of the term of "Boys Who Used Their Brains," cites the case of George Judisch of Ames, who was born in a little log hut in Muscatine county, was educated in a little log school house in same county, advancing as far as the seventh grade. Commenced business by delivering the Muscatine Daily Tribune for

25 cents a week for two years. Picked peas at 25 cents a bushel and did other work of a similar character as it came to hand.

George had an ambition to become a druggist and when within a year and a half of being through grammar school he secured the position of an apprentice for a druggist in Muscatine. Later he had an ambition to be a doctor, but at this time on account of sickness in the family he was obliged to keep on working; moved to Des Moines and got a "job as third man" in Harlan Brothers drug store. Dr. Hanawalt became interested in the man, loaned him books and helped him in many ways. By reading, working and saving, George was able to purchase a drug store in Ames. By industry, reading and using his brain he acquired a knowledge of medicine that a graduate might well be proud.

George Judisch is now professor of materia medica and pharmacology in the School of Veterinary Medicine, Iowa State College. We are informed that Judisch is relieved of worry as to where the loaf will come from for tomorrow's dinner.

Apparently we have a man who is not finding fault with the world for not doing more for him.

PHYSICAL CENSUS OF THE MALE POPULATION

The British government has issued an interesting volume on the physical condition of the men of England, Scotland and Wales as determined by examinations for war service. The results are not flattering. After setting forth the standards of acceptance for service a large body of statistics are taken from different sections of the country with the view of ascertaining what influence environment and ways of living may have on physical development.

The examinations were carried out by medical officers of the regular forces, the special reserve and territorial forces and by civilian practitioners especially appointed for the purpose.

From these statistics the British Medical Journal expresses much anxiety for the future of British manhood. "As the result of nearly 2,500,000 examinations less than 872,000 men were placed in grade 1—that is to say, only 36 per cent attained the full normal standard of health and strength and were judged capable of enduring physical exertion suitable to their age; 250,000 were judged to be totally and permanently unfit for any form of military service and were placed in grade 4." In addition the British Medical

Journal says "There were twice as many lads (of eighteen years) totally and permanently unfit for any form of military service as there should have been. If such be the state of physique amongst our youths what are we to assume as to the condition of older men who have had to undergo the full stress of industrial life."

The findings of the London boards were particularly bad, and are in the east end of London, designated as the "Black List." These are comprised in Mile End, Whitechapel, Stepney, London Docks, Bethnal Green and Bow. The occupations included, barbers, Turkish bath attendants, masseurs, manicurists and complexion specialists.

In the northwestern region conditions were not much better; underweight was an important factor, out of 1,070 recruits of eighteen years, there were 451 (or 42 per cent) were less than 112 lbs. in weight. The West Midland Region, Yorkshire and East Midland Region did not differ materially. In the latter region, tuberculosis was found very prevalent among the Jews.

In Scotland and Wales the physical condition of the men was much better because of the larger country contingent.

In England the bad physical condition of the young men, including sickness and underweight was found on an analysis of the figures to be influenced largely by the condition of industrial workers as bad housing, poor food, long hours of work, bad sanitary surroundings and heavy work at an early age. It was believed that the physical conditions of young men could be greatly improved by better living, better housing and shorter hours of work for boys and more recreation. All the areas in England were industrial but there were enough country spots to show the difference between the workers in industries and mines and the agricultural population. Notwithstanding the better physical condition of recruits from Scotland and Wales there was enough evidence presented by these statistics to cause Great Britain much anxiety for the future and arouse public sentiment towards better conditions of labor and living.

RESPIRATORY STUDIES LATE STAGES OF GAS POISONING

Those who have observed war risk cases have no doubt been impressed by the fact that disabling symptoms due to shortness of breath present no confirmatory signs of impairment of heart or lungs; and if the examiner measures the

symptoms complained of with objective symptoms revealed by an examination he might be led to believe that the ex-soldier was malingering. A few patients have appeared suffering disabling respiratory symptoms without physical evidence of disease but whose statements could not fairly be denied.

We have been attracted by a paper published in *The Journal of Laboratory and Clinical Medicine*, by R. G. Pearce, M.D., Akron, Ohio, who has made a clinical study of three cases:

The first case was a British soldier gassed in the early part of the war. In seeking a pension the question was raised of feigning. The following test was made:

His respiratory exchange, minute volume of air, depth and rate of respiration, tension of carbon dioxide in the alveolar air and that in equilibrium with his venous blood (affluent blood of the lungs) were determined at rest, walking and running at a dog trot for a short distance; and compared with those of a normal man. At rest practically normal figures were obtained, but on exercise his minute volume of air, in comparison with the degree of work done as measured by the oxygen consumption was greater and out of all proportion to that obtained in the normal being. This superventilation naturally decreased the percentage of carbon dioxide in the alveolar air, but the blood returning to the lungs had a normal or slightly increased tension of carbon dioxide. In spite of this fact, his breathing was labored and fast and he felt faint.

This man was under observation for a year and as his condition grew worse he was advised a dry climate.

The interpretation made by Dr. Pearce was that the disability was due to a dissociation between the ability of the blood to obtain oxygen and to rid itself of carbon dioxide.

The other cases were of a similar character and were studied in a little more detail, one case appeared to be one of the cases of neurosis that follows gassing.

The time is too short to determine the final result of the cases observed but they are certainly worthy of careful study and have an important bearing on fairness to the claimant and justice to the government.

INTERNATIONAL HEALTH BOARD

An enlightening editorial appears in the *Journal of Laboratory and Clinical Medicine*, for April, 1920, as to the work this board is doing in various parts of the world, we therefore present some of the main features:

There is no health agency in the world doing bet-

ter or more effective work than the International Health Board. The purpose of this board is to demonstrate in different parts of the world the efficiency and value of scientific sanitation and to induce, by practical demonstration, the locality to undertake and continue work. A brief review of the operations of this board will, we are sure, be of interest to the medical profession. The work was begun in 1910 and directed to the eradication of hookworm disease in certain southern states.

While progress in sanitation during the first six years was extremely slow, for the past four years improvement has been continuous and has steadily gained in momentum. Since 1915 the progress in state and local support has been steady. In 1919 the board was compelled to furnish more than 80 per cent of the money necessary to carry on this work. In 1919 the state boards of health and the counties, seeing the great value of the procedure furnished near 80 per cent of the money to continue work. This indicates that the time will come when state and local authorities having so valuable a demonstration before them, will proceed without help. In the West Indies the hookworm campaign has extended over British Guiana, Dutch Guiana, Grenada, and many of the West Indian Islands. In Central America it has included Panama, Costa Rica, Nicaragua, Salvador, and Guatemala. The work in Brazil has met with most encouraging results. During the current year (1920) the board will expend \$200,000 on the work in Brazil, while the federal and state governments have provided \$1,150,000. At first the work of the board was limited largely to the control of hookworm disease but at present malaria is included in the program. It is intended to cover the whole of the great country of Brazil. State departments of health are being established; existing departments are being more effectively organized, and funds are being liberally provided. The work in the federal district is being used as a training center for representatives from the several states and sentiment is being formed for adequate schools to train workers for positions in the public health service. The government of Columbia contributed \$6,000 and Ecuador has asked that the work be extended in that country.

COMPLICATIONS OF ACUTE GONORRHEA

Lieut.-Colonel W. S. Conkling, M.C.

Complications of this malady are so many in character that it would be impossible to cover them. It is the intent of the writer to enumerate briefly some of the real important ones, and to elucidate some of the modern day views on the subject.

A word as to prophylaxis would not be amiss here, in its relation to the prevention of these complications. It is a well established fact that complications occur with greater frequency in the hands of some practitioners in comparison with others, and it is

obvious that there must be definite reasons.

Permit me to state factors that predispose to the development of these complications, and those that assist in prevention.

First—Over-treatment, both quantitatively and qualitatively, injudicious employment of irrigation during the early stages of the disease, strong injections roughly introduced into the deep urethra, and the employment of injections during the hyperacute stages.

Second—Rest in bed, avoidance of any form of exercise if there exists posterior urethritis, and lastly the employment of a proper fitting suspensory.

EPIDIDYMITIS

Epididymitis is by far the most frequent of all acute complications. It is caused by the gonococcus passing from the seminal vesicle to the epididymis by the way of the vas deferens. Secondary swelling and edema occur, formation of small abscesses which extends out to the supporting tissue, seldom involving tunica albuginea. This last structure prevents infection spreading to the testicle. However, at times instead of these small miliary abscesses developing, there may be an extensive brawny infiltration with considerable exudation into the sack of the tunica vaginalis.

The symptoms and findings depend in a great measure on the severity and intensity of the infection. In the less severe forms temperature and chills are absent, pain predominates in the side infected, associated with moderate degree of tenderness, but insufficient to keep the patient in bed. In the more severe types, temperature, chills, and nausea are always found. Pain of the excruciating character located in the epididymis, at times it may radiate upward along the cord, closely simulating some of the intraabdominal infections. On examination marked tenderness, swelling and induration are detected. The discharge from the urethral canal simultaneously disappears at the onset of the disease and reappears as the swelling in the epididymis subsides.

Treatment—Conservative, consists in absolute rest in bed, proper support and elevation of the scrotum by a shelf made of adhesive plaster four to six inches wide, applied to the thighs, application of continuous hot fomentations, and the employment of anti-gonococcus serum. This last remedy works rather magically in some cases. The selective action of these serums is not definitely known. However, excellent results sometimes follows its use.

Surgical interference is reserved for those cases that have continued pain, high temperature, and considerable swelling. Hagners operation, epididymotomy, is the procedure of choice. It consists in opening the tunica vaginalis posterolaterally at the junction of the epididymis and testis; fluid is evacuated, multiple punctures are made into the epididymis and a small piece of gutta serena is placed in the lower angle of the incision, both fascia and skin are closed in the usual way. The operation has its advantages

for the following reasons: hastens resolution, decreases the pain, recurrences are prevented and lastly there exists a better chance for the lumen of the vas remaining patent, which means less opportunity for the development of sterility on the side involved.

PROSTATITIS

The conditions that predispose to the invasion of this structure during a gonorrheal infection are about the same mentioned under the etiology of epididymitis. Infection takes place in more than half of the cases of acute gonorrhea. Three distinct classes are recognized; catarrhal, follicular, and parenchymatous. The first being the mildest in character. It is characterized by superficial inflammation of the prostatic ducts and acini. The process usually remains localized with early development of resolution. At times it continues with increasing intensity with the result that suppuration and exfoliation takes place in the ducts and glands. Then it is classified as follicular prostatitis. If, however, the inflammation still continues without any evidence of resolution, a few of these small glands break down, later coalesce and attack the proper structure of the gland itself. This gives us a true parenchymatous affair, a condition which is a forerunner of prostatic abscesses.

Prostatic abscess with reference to their origin is generally classified as intra follicular or interstitial, with reference to location; central, cortical or submucous. In the incipient stages, single abscesses may be encountered—multiple type usually is the rule. Abscesses once formed tend to open externally into the urethra, rectum, or into the perineum, the majority into the deep urethra.

Symptomatology, again depends upon the virulence of the invading organism. Pain—the pain that is associated with acute prostatitis is proportionate to the degree of the enlargement of the gland. It is always located in the perineum, and at times may be quite excruciating. The other characteristic symptoms are dysuria, frequency of urination, constipation, painful defecation, retention of urine which depends upon the degree of enlargement of the gland and lastly evidence of systemic reaction. Palpation reveals intrarectal tumefaction, the organ feels hot and tender. It may enlarge to enormous size at times, filling the entire lower bowel.

Treatment—Treatment of this condition again depends in a great measure upon the degree and severity of the infection. The milder types which includes the catarrhal and the follicular require very little treatment, due to the fact that they present no special symptoms that require relief. Proper medication of the posterior urethra, combined with gentle massage is all that is necessary.

Abscesses always require considerable judgment in determining just what is the proper procedure to carry out. Rest in bed, diet restrictions, sedatives, application of heat to the symphysis and hot rectal irrigations are the chief non-surgical remedial measures. On the surgery of this organ, particularly as to the correct technical procedure to be employed,

considerable diversity of opinion prevails. All authorities have similar views on one point, that is, open and drain, where marked septic symptoms and a large fluctuating mass are present. In the writer's opinion the procedure of choice is to attack the gland by the perineal route, using the inverted v-shaped incision, and incising the gland in a vertical direction. Advantage of such an incision is that structure of the urethra and the sphincter of the bladder are preserved.

SEMINAL VESICULITIS

Acute infections of the seminal vesicle. Acute infections of this structure like those of the prostate, are almost always due to the gonococcus—the organisms enter the seminal vesicle through the ejaculatory ducts, the factors that are responsible for this invasion are the same that produce epididymitis. When bacteria once gains access to the vesicle eradication of the infection is made quite difficult because of the peculiar anatomic construction of this structure. The presence of numerous crypts, ducts, and blind pockets prevent proper drainage; this one fact accounts in a great measure for the persistency of a great many of the infections. It can readily be understood the importance of directing attention to this organ for the proper solution of a cure.

Positive diagnosis of this malady at times is rather difficult to make, because the symptoms and findings are virtually those of a posterior urithritis and prostatitis. However, there does exist a few symptoms and findings that when present are positive indications of involvement of this structure.

Frequent nocturnal emission, ejaculations that are accompanied with pain and blood, persistent urethral discharge that does not yield to proper local treatment, or at times a discharge that disappears promptly following the injection of any of the mild silver salts, but suddenly reappears notwithstanding the fact that there has been no exposure. Findings by rectal palpation are not always consistent—at times the vesicles are found to be quite distended and exquisitely tender, examination of its expressed content discloses numerous pus cells and bacteria; swelling and pain along the cord and the development of an epididymitis is always positive indication of seminal vesiculitis.

Treatment: is both surgical and non-surgical; the non-surgical methods are similar to those for curing prostatitis, rectal injections of hot water, gentle stripping of the vesicles, mild intravesical irrigation and installations of the deep urethra, vaccines are employed quite extensively by some. My own experience with them has been unsatisfactory. During the past few years, the value of surgical drainage of the seminal vesicle has become more generally appreciated. The many disturbances that affect joints, we know are due to focal infections, and it is a well recognized fact that gonorrheal infections of a seminal vesicle are responsible for these metastatic disturbances. Because of this relationship, surgery of this structure has been highly recommended as

curative by some of the most reliable urologists. At the present time two operations are in vogue. First, vasotomy; second, vesiculotomy; the former procedure is quite simple, consists of a small scrotal incision, liberation of the vas and injecting through its lumen a 15 per cent argyrol solution; all of this is accomplished under local anesthesia. The latter operation is much more difficult. The vesicles are approached either perineally or through the ischio-rectal region; by means of specially constructed tractors the vesicles are brought down well into the wound and drained.

It suffices to state that the selection of cases for operation should be those which cannot be overcome by the usual non-operative methods of treatment.

STATE UNIVERSITY MEDICAL NEWS

Don M. Dickerson

Drs. Baldwin, Rowan and Alcock of the University Hospital read papers during the mid-summer convention, of the Cedar Valley Medical Society at Clear Lake.

Dr. R. B. Gibson of the staff of Internal Medicine, University Hospital, has been spending a month in Virginia, which is his native home. Dr. Gibson's family preceded him some weeks ago.

Dr. and Mrs. R. V. Funston are enjoying the month of August in Washington, D. C., Richmond, Virginia and New York City. Dr. Funston is instructor of orthopedics in the Children's Hospital.

Dr. J. W. Figg recently returned to Iowa City after a pleasant and profitable vacation.

Dr. Earl A. Morgan and Miss Helen Kinney were married Tuesday, July 27 at Dubuque, Iowa. Dr. Morgan graduated from the College of Medicine, S. U. I., class of 1920 and is now an interne in St. Joseph's Mercy Hospital at Sioux City.

Dr. Eugene E. Hubbard and Miss Myrtle Spatz were married at Adel, Iowa, July 30. Dr. Hubbard is practicing at Ripley, Iowa, where the young couple returned immediately after the ceremony.

Dr. Graham was recently appointed acting superintendent of the University Hospital, vice Dr. Collins who resigned July 1. Dr. Graham has acted in this capacity on previous occasions and is welcomed back by his many old friends and associates.

Dr. and Mrs. C. P. Howard recently left Iowa City for an extended visit to Montreal and England.

Friends of Dr. H. E. Harlow of Zearing, Iowa, were shocked to hear that he had passed away at Rochester, Minnesota. Dr. Harlow graduated from

the College of Medicine in 1914. He was a member of the Phi Rho Sigma Fraternity and one of the leading members of his class in school. In August, 1915, he married Miss Velma Marshall, formerly of Iowa City. He is survived by his widow and little daughter, Marian.

Dr. R. E. Steward was recently named as superintendent of the Independence Hospital. He previously has been assistant superintendent at the institution at Mt. Pleasant.

Dr. Libbie Swymour Cammack, who graduated from the College of Medicine, S. U. I., 1904, has returned to Iowa from her work in Africa. Dr. Cammack and her husband, Dr. W. S. Cammack have established a hospital and boarding school for girls at Sachikela, West Central Africa. They report favorable progress in the work, but returned for a year's vacation.

Dr. J. J. Metzinger was recently called to Iowa City by the death of his mother, Mrs. J. W. Metzinger. Dr. Metzinger is an alumnus of the former College of Homeopathic Medicine, S. U. I., class of 1899, and is now engaged in practice at Fremont, Nebraska.

Dr. E. J. Rock who has for some time been associated with Drs. Dean and Boiler in Iowa City, has decided to open an office in Davenport.

Dr. F. Wheeler has returned from Clermont, New Hampshire to serve as an interne at the University Hospital. He will serve in the department of oral surgery under Dr. A. R. Fenton.

Dr. B. Singh Jain who has been spending the last five years in the College of Medicine, S. U. I. will return to his home at Gohana, India, to practice. Dr. Jain, since his graduation has been doing post graduate work in the department of pediatrics and leaves well prepared to represent the university standards and American medicine.

Dr. Dallas L. Scarborough, father of Dr. H. V. Scarborough, superintendent of Oakdale Sanitarium, died July 11, 1920. Dr. Scarborough was seventy-five years, eleven months and ten days old and has completed a long and honorable career in the medical profession of the state.

At a meeting of the State Board of Health, held in Des Moines July 21 and 22, Dr. W. L. Bierring of Des Moines and Dr. C. H. Grant of Iowa City were reappointed as members of the board. Dr. Grant was elevated to the position of president.

Dr. Henry Albert, state bacteriologist, Dr. Don M. Griswold, state epidemiologist, and Mr. J. J. Hinman, state water analyst, were called to the meeting to

confer with the board on matters pertaining to their respective divisions.

The new school of public health nursing will be opened at the State University this fall.

The organizing of this school is in response to a state-wide feeling that public health nursing service is well nigh indispensable and worth far more than it costs.

Forty counties are at the present time employing from one to three public health nurses. Twenty other counties have made appropriations, but the trained personnel is not available.

It is expected that this school will furnish the training that is required for this work in both rural and urban districts. Miss Grace Stewart has charge of the organizing and will direct the work. Miss Stewart is a graduate of Columbia University and has recently been in charge of similar work for the state board of health of Ohio.

The present schedule will include instruction by the medical faculty in eye, ear, nose and throat clinic work, public health and preventive medicine, laboratory work, besides lecture courses on administrations, child welfare, and state board of health rates and regulations.

This opens a vast field for new work in this state and it is expected that a number of well prepared young women will take advantage of this special training.

Dr. C. R. Thomas of the student health department recently returned from an extended trip through the Eastern states during which time he visited the leading hospitals in Detroit, Chattanooga, Tennessee, Washington and Baltimore.

The student health service has been enlarged for the coming year by the addition of a woman physician to act as physical examiner and medical adviser for the young women of the university. The student health service is justifying the fondest hopes of its founders and the addition of another physician will make possible as complete a health service as is maintained by any of the large American universities. The idea is fast taking root that when the students come to the university they should have their bodies cultivated and guarded as well as their minds.

Dr. Elizabeth Chaffin who recently finished the post-graduate course at Rush Medical College has been appointed to this position.

At the recent meeting of the American Public Health Association held in San Francisco the University of Iowa was represented by Dr. Henry Albert and Dr. W. J. McDonald. The meeting is reported as having been a very profitable one and one that all members of the medical profession and especially those interested in public health and preventive medicine would have enjoyed.

In keeping with the general policy of protecting the student health, to eliminate unnecessary absenteeism and to improve the general attendance, the student health department was recently called in to give a special examination on the heart, lungs and kidneys of all men engaged in football. While football candidates are usually the most rugged men in the college, occasionally some candidate will present himself with a leaky heart valve, an old nephritis from one of the acute diseases of childhood or a chest lesion of a sort that the strenuous training of the football season would develop into an acute condition. This careful supervision will also probably save some athlete from the condition known as "athletes heart" which might effect him in after life. Such careful physical examination is to be highly commended and if other colleges and high schools carry out such measures the accidents on the athletic field and to athletes after their college days would be far less common.

The out patient service of the new psychopathic hospital has been established on Tuesday, Thursday and Saturday at 10:00 a. m. This service is conducted by Dr. Samuel T. Orton, director of the new institution and his assistants.

Out patient service for syphilis of the nervous system has been established at the new psychopathic hospital at 9:00 on Monday and Thursday mornings. This service is rendered by Dr. Lawson G. Lowery, assistant director of the psychopathic hospital.

Both of these services seem to have filled a long felt want to the physicians of the state as they have been taking advantage of as fast as the character of the service became known. Any physician of the state who wishes to consult Dr. Orton or Dr. Lowery regarding diagnoses within the realm of these clinics may present their patients at this out patient service and have the benefit of expert opinion and advice free of charge.

The number of beds in the State Psychopathic Hospital will be rather limited until the completion of the new buildings which are expected to be open about the first of the year. Patients are being admitted and taken care of in the meantime, but, before patients are brought to the hospital, arrangements should be made with the director by letter or long distance telephone to make sure that beds are available.

Miss Margaret Moffet of Tipton, Iowa, has recently taken charge of the social service work of the State Psychopathic Hospital.

Miss Moffet graduated from Smith's College in Massachusetts in the course in psychopathic social service work. Smith's College is doing a very important work in training social service workers with special reference to the psychopathic field.

Additional space has been added to the University Hospital for the enlargement of out patient service

in the genito-urinary clinics, surgical clinics, dermatological clinics and medical clinics. The out patient work in these various lines has been growing enormously.

The laboratory for the state board of health for water analysis announces that during the month of August more specimens were examined than during any similar period since the inauguration of water analysis work.

The x-ray department of the University Hospital is installing new equipment which will approximately double its capacity. This department under Dr. Bundy Allen's direction has been going through a period of rapid growth and the demands on the former equipment which was among the large installations in this section of the country has been found too small for the amount of work demanded of it. The new installation will make this equipment one of the most complete in this section of the country.

Radium valued at \$10,000 has been recently added to the former collection at the University Hospital to allow more complete and thorough therapeutic work with this valuable mineral. The new bits of radium that have been added to the collection are larger than any of the previous ones and fitted into very unique applicators for applying the substance in ways that was formerly impossible.

One of the recent additions to the department of internal medicine is the installation of an electrocardiograph. This instrument is added to facilitate research in obscure heart cases and to render better service to patients who are presented at this clinic.

With the opening of the public schools about the state, the incidence of diphtheria, scarlet fever, measles and the other contagious diseases will begin to increase. Many cases of diphtheria can be prevented by the routine measure of culturing the throats of all school children in the school room the child has been attending when he developed diphtheria. This precaution is no more than common justice to the other children of the room who have no way of knowing whether they have been infected from the first case or not. Until such procedure becomes a common practice, diphtheria will claim its annual toll of thousands in this state.

The prevention and control of diphtheria has been put on a thoroughly practical basis and by the proper use of antitoxin, taking throat cultures, using the Schick test and administering toxin-antitoxin for immunizing people against this disease, diphtheria should show a marked decline in incidence from year to year.

During the hot months the usual large number of dog heads were received at the state board of health

laboratories for examination for rabies.

It should be borne in mind that rabies is not particularly a hot weather disease but a sure contagious disease and is as prevalent one time of the year as another.

Dogs or other domestic animals that have change of disposition and bite some person should be restrained from further biting for a period of ten days and if the animal is alive at the end of this period it has proof positive that the animal was not rabid when the biting was done. If the animal dies within these ten days, the head of the animal should be cut off and sent to the state board of health laboratories for examination, or the accredited Pasteur treatment begun at once.

The state board of health furnishes material for this Pasteur treatment for \$25 which is to be administered by the local physician so that the patient can remain at home and not be at the expense of coming to Iowa City.

SOLDIERS' HOMES AS SANATORIA FOR DISABLED SERVICE MEN

Plans are being made for the disbursement of the \$48,000,000 appropriation by Congress for the hospital care and medical treatment of disabled ex-service men and the War Risk Insurance Bureau. At a conference recently held between General Wood, president of the board of managers of the National Homes for Disabled Volunteer Soldiers; Dr. Pattison representing the National Tuberculosis Association and Director Cholmeley-Jones of the War Risk Insurance Bureau, it was decided to convert two of the national homes into sanatoria for the exclusive treatment of tuberculosis and one of the homes into a sanatorium for the exclusive treatment of mental cases. Each of the tuberculosis sanatoria is being equipped to care for 1,000 hospital patients and the sanatorium for the treatment of mental cases will also accommodate 1,000 cases. There are already approximately 17,625 war risk patients in hospitals, of whom 7,980 are in United States Public Health Service Hospitals, and 9,645 in hospitals and other institutions not owned or operated by the government. About 900 hospitals in the United States are now caring for war risk patients.

RESIGN FROM MEDICAL FACULTY MARQUETTE UNIVERSITY SCHOOL OF MEDICINE

Ten members are reported to have resigned from the faculty of the Marquette University School of Medicine of Milwaukee, Wisconsin, on account of a disagreement between them and the president of Marquette University over several ethical questions, one of which is that of sacrificing unborn infant when necessary to save the life of the mother. Those resigned are:

Drs. Louis M. Warfield, professor of clinical medicine; John L. Yates, professor of clinical surgery; Emerson A. Fletcher, director and professor of genito-urinary surgery; Carl Henry Davis, associate professor of obstetrics and gynecology; Chester M. Echols, associate professor of obstetrics and gynecology; Frederick J. Gaenslen, director and associate professor of orthopedic surgery; James D. Madison, associate professor of medicine; Arthur W. Rogers, associate professor of neurology; Charles H. Stoddard, associate professor of medicine.

August 4, 1920.

Dr. D. S. Fairchild, Sr.,
Iowa State Medical Journal.

The Hospital Corps of the United States Navy has now 500 men less than on January 1, 1920. There are a total of 1200 vacancies in the Hospital Corps of the Navy.

The service is particularly attractive for druggists and young men of intelligence and ambition who wish to acquire an education while earning more money than is usually possible for them to make in the positions which they now occupy.

The recent pay bill greatly increased the pay of enlisted men in the navy. The rates of pay of hospital corpsmen vary from \$48 to \$3,120 a year. Considering that in addition the man receives his quarters, sustenance, medical attention, \$100 allowance for clothing, retirement at the end of sixteen years on one-third pay; at twenty years on one-half pay, and at end of thirty years service, on three-fourths pay and that his education is completed at government expense, it is more attractive immediately financially to the average man, and ultimately is far superior to any position to which the average man attains in private life. Enlistments are open to men between the ages of eighteen and twenty-five.

Thomas F. Duhigg,
Lieut. M.C., U. S. N.

PROF. ADOLF LORENZ, VIENNA I, RATHHAUSSTR. 21

Vienna, August 28, 1920.

American Relief Committee for Sufferers in Austria:

I acknowledge herewith receipt of draft No. 41,571 for 4,779.40 kronen according to your wishes and add my heartfelt thanks to you as well as especially to Dr. J. W. Jobling and his charitable cooperators, to all of whom I would write if I knew their respective addresses. Tell them, please, how much we appreciate their welcome endeavors to assist us in our plight, which seems to become more and more distressing. We must repeat it again and again, that the crippled state new Austria can't live by itself alone, having been deprived of all its former resources—not being able to produce more than the fourth part of food, wanted by its six millions of inhabitants and having neither coal nor the necessary raw materials to work into industrial articles,

to buy food with, the crowns having become nearly worthless.

If this hopeless condition of new Austria is not grasped to its full extent by the outer world very soon, the twentieth century of progress and civilization will witness the spectacle, unheard of in the history of mankind, of a people doomed to die of hunger, although it is intelligent, skillful and willing to work.

With repeated warm thanks to the donors and to you.

CARD OF THANKS—OCTOBER 30, 1920

The medical profession of this and other counties has shown so many marks of affectionate appreciation on this the sixtieth anniversary of my commencing practice, that it is impossible to personally thank them all, I therefore take this opportunity to express my appreciation of their love and esteem.

I have been forbidden to give attention to medical subjects and therefore retire permanently from active practice today

Edward Hornibrook, M.D.,
Cherokee, Iowa.

Dictated to his daughter, Rose Toman.

MEDICAL NEWS NOTES

Dr. H. D. Fallows of New Hampton will come to the Park Hospital on September 1. Dr. Fallows will take charge of the eye, ear, nose and throat department of the Park Hospital Clinic. With this addition and with its newly decorated and equipped offices, the Park Hospital will be more than up to standard. Dr. Fallows has been a prominent New Hampton physician for the past ten years. During the summer of this year he has been at Boston, where he has taken special medical work.

Des Moines ranks fourth among the cities of the United States in the general efficiency of its methods of fighting social diseases. A report just received by Dr. H. L. Saylor, head of the health department, gives the results of a survey made by the United States public health service in 444 cities above 25,000 in population. Of the entire number only Portland, Oregon, Salt Lake City and Grand Rapids scored higher than Des Moines. This city scored 745 points out of a possible 1,000. Tacoma, Washington, with 738 and Lincoln, Nebraska, with 720 are two of Des Moines' closest followers. Omaha is well down the line with 670 points, Denver with 793, Indianapolis with 679, and Oklahoma City with 706. Kansas City, Missouri, rates only 412. The health authorities determined the rank of each city by ascertaining what is being done in the way of medical, legal, educational and general cooperative measures to combat social diseases. Another survey will be made be-

ginning November 1 to determine the progress made by each city.

Waterloo is to have a new life insurance company, the Medical Life Insurance Company of America. Its capital stock authorized is \$300,000, at \$10 a share. It will insure the sub-standard men and women who are rejected by other companies because of physical defect—disease or deformity. They will be carried as a special risk until a health service department, composed of twelve medical specialists, removes the cause of their rejection by other standard life insurance companies. Members of the board are Dr. Frank A. Ely and Dr. Julius S. Weingart of Des Moines; Dr. W. A. Rohlf of Waverly, president; Dr. W. H. Ross and Dr. J. E. Brinkman of Waterloo, vice-presidents; J. M. Schultz, Waterloo, secretary and treasurer. W. F. Getsch of Nashua, chairman of the board of directors.

With the coming of the school season, Dr. Jeanette Throckmorton, federal government lecturer on women's health and who also cooperates with the state board of health, will begin a series of lectures in the high schools and colleges of the state. Dr. Throckmorton will fill speaking engagements at the three Des Moines high schools and at the colleges of the city. She will also talk to the women of the University of Iowa, Iowa State College, Cornell, Upper Iowa and other colleges in the state. When she is in the larger cities she will also appear before the parent-teacher associations, mothers' clubs, other groups of club women and in factories. Plain health facts and social relations furnish the subject of Dr. Throckmorton's addresses. She takes with her two moving picture films to illustrate her talks, "How Life Begins" and "The End of the Road." Last year Dr. Throckmorton delivered 500 lectures, speaking before 67,000 girls and women. She returned early in the summer from conference in Brussels, Belgium, where she was one of the speakers. During the summer she has been engaged in baby health contest work at state and county fairs.

At a recent meeting of the executive committee of the board of directors of the North Iowa Lutheran Hospital Association, it was decided to open St. Luke's Hospital the first part of September. The building on the site purchased in June will be used for this purpose. It is being put in readiness. It will accommodate from twenty-five to thirty beds. As soon as the equipment is placed in order the hospital will be open to receive patients.

The Billy Sunday of sanitation in America is Dr. Oscar Dowling, state health officer of Louisiana. He cleanses premises and eliminates disease with "merciless publicity" and exposure. Dr. Dowling does all his health work in a spectacular way, thus making health and sanitation an interesting subject. Some of the things that have distinguished Dr. Dowling

are: Was sued by a patent medicine concern for telling that it was "a fraudulent alcoholic nostrum." Dowling won. Sued by another patent medicine firm for \$25,000. Won again. The American Medical Association paid \$40,000 helping him. Publishes an almanac, to compete with those published by patent medicine concerns. One Louisiana restaurant will never live down the nickname, "The Greasy Spoon," as it was dubbed by Dr. Dowling. Condemned slaughter pens, destroyed large stores of bad meat, closed dairies and tabooed patent medicines. Made the city and town jails clean up and a few court houses were compelled to renovate. Made oleo bear a label and caused bread to be wrapped. Once he gave the mayor of Shreveport forty-eight hours to clean up.—Des Moines News.

The work of converting the buildings of the defunct inebriate hospital into a modern sanitarium for disabled soldiers of the World War has been making good progress during the past two months under the supervision of Col. C. A. Barlow, government official in charge, and is now ready to receive patients

Because living costs have advanced, graduate nurses of the Iowa Methodist Hospital have adopted a new schedule of hours for work and prices. Nurses will work only twelve hours a day and whenever possible will be allowed two hours off duty during these hours. The schedule of prices will be: \$50 per week and board for surgical and medical cases; \$60 for contagion and mental cases; \$55 for obstetrical cases. "It was the candid opinion of private duty nurses that the public would rather have 12-hour efficient nurses than the 24-hour overworked nurse of today," said Violet Anderson, acting secretary of the alumni. We do not take this stand as a matter of unionism, but as an inducement to young women to enter our profession," she declared.

St. Francis Hospital, Waterloo, has met all requirements for a standardized hospital and has been accepted into Class A, by Dr. E. W. Williamson of the American College of Surgeons. The twelve hospitals operated by the Franciscan sisters are now all standardized.

The new City Memorial Hospital at Maquoketa was opened August 5.

SOCIETY PROCEEDINGS

Cherokee County Medical Society

Cherokee County Medical Society met at the Cherokee State Hospital May 26.

Dr. C. H. Johnson read a paper on Ectopic Pregnancy which was followed by an interesting discussion.

Dr. George Donohoe reported on the New Orleans meeting of the American Medical Association.

Dr. Bordner of the State Hospital staff reported

on the use of Luminol in the Treatment of Epilepsy.

Dr. D. M. Wardner reported on a case of Brain Tumor.

Kossuth County Medical Society

Kossuth County Medical Society convened in regular session at Whittemore, August 26. Dr. Bowen of Fort Dodge read a paper on Cardiac and Pyloric Spasm.

Dr. and Mrs. McCreery treated the visiting guests to a six o'clock dinner at the Engler restaurant.

The outside physicians who attended were Dr. Bowen of Fort Dodge, Dr. Filmore of Corwith, Dr. Janse and Dr. Spooner of Luverne, Dr. Livingston and Dr. Boas of Livermore, Dr. Watson of Bode, Dr. Shipley of Ottosen, Dr. Baldwin of Ruthven, Dr. Cretzmeyer of Emmetsburg, Dr. Woodbridge of Cylinder, Dr. Nash of Fenton, Dr. Maher of Bancroft, Dr. Peters and Dr. Clappsaddle of Burt, Drs. Cretzmeyer, Fellows, Hartman and Kenefick of Algona, and Ella Burke and Sybil Randall, nurses. Wives of the doctors who attended were Mesdames Baldwin, Boas, Watson and Livingston.

Mitchell County Medical Society

The sixtieth annual meeting of the Mitchell County Medical Society was held in Riceville. After a dinner given the society by Drs. Walker at their home a business meeting was held.

The following officers were elected for the coming year. President, Dr. T. A. Walker; vice-president, Dr. C. C. Wiggins; secretary-treasurer, Guy A. Lott; censor for three years, Dr. H. T. Walker; alternate delegate for next year Dr. T. S. Walker.

A tuberculosis clinic was held in Osage, by Dr. John H. Peck of Des Moines, October 1, under the auspices of the Mitchell County Medical Society.

A wealth of material was on hand due to the co-operation of the doctors and Miss Ruth Schoonover, county nurse.

A profitable time was enjoyed by all who were permitted to attend and the members consider holding another clinic in the near future due to the number of cases which could not be examined for lack of time.

At six o'clock a dinner was served. Covers laid for twenty guests. Guy A. Lott.

Montgomery County Medical Society

Fee bill passed by the Montgomery County Medical Society, July 16, 1920. Day call, 8 a. m. to 8 p. m., \$3; night calls, 8 p. m. to 8 a. m., \$5; country call, same as town call, with additional mileage. Uncomplicated obstetrical cases in town \$25. Instrument cases according to the complication. Office visits, \$1 and up.

Pocahontas County Medical Association

Dr. Hovenden of Laurens was elected president and Dr. Everson of Plover secretary of the Pocahontas County Medical Association.

hontas County Medical Association at a meeting held in Gilmore City Tuesday, August 17. About eighteen physicians from this county attended, besides a number from Humboldt and Fort Dodge. A paper on "Medical Ethics" by Dr. Smillie of Gilmore City was ordered sent to the Iowa State Medical Journal for publication. Papers were also read by Dr. Field of Fort Dodge and Drs. Townsend and Jones of Gilmore City. A banquet was served at the Snow White Cafe after adjournment. Drs. Beam, Wilson and Hollis of Rolfe were present at the meeting.

The Polk County Medical Society Guest of The Retreat

Doctors Gershom H. Hill, J. C. and Russell C. Doolittle, entertained the members of the Polk County Medical Society and their friends at The Retreat, October 5 at a dinner, which was served in the basement of the new neuro-psychopathic building.

This building, which was completed this year, has room for eight patients, besides a large amusement room in the basement for the use of patients, and Dr. Hill's office on the third floor. Only the milder functional nervous cases are accommodated in this building.

The grounds were beautiful as always, and, while one would not desire to experience a nervous breakdown in order to secure a stay in these pleasant surroundings, yet one who has been so unfortunate is to be congratulated if he can spend his time of recovery amidst such ideal surroundings.

The program was presented in the parlors of the main building. Dean Cowper and Prof. William Frith of Drake University furnished some excellent music, after which President Holmes of Drake University gave a very interesting talk on psychology, the program closing with one of Dr. J. H. Peck's inimitable talks on tuberculosis.

The attendance was thirty-eight physicians and forty-eight visitors; many members of the society were not present on account of attendance at the Tri-State Medical Society meeting held at Waterloo.

Wayne County Medical Association

The second quarterly meeting of the Wayne County Medical Association was held at the Wayne Hotel. There were between thirty and forty doctors present from the various towns of the vicinity, and the program carried out except the paper of Dr. Ely of Des Moines, who was unable to be present on account of sickness.

Dr. Vaughn L. Sheets of Chicago, read a paper on Focal Infection.

Dr. H. E. Webb of Centerville read a paper on Fractures.

After the program dinner was served by the Fox Cafe in the hotel dining room and Dr. U. L. Hurt acted as toastmaster.

Southwest Iowa Medical Association

At the Southwest Iowa Medical Association meeting at Murray the officers elected for the coming year were: President, Dr. C. R. Harken, Osceola; vice-president, Dr. A. Fred Watt, Creston; secretary-treasurer, Dr. J. S. Coontz, Garden Grove.

Tri-County Medical Society

The Tri-County Medical Society, consisting of physicians of Mahaska, Monroe and Marion counties met in Oskaloosa, September 23, 1920. This was the first meeting of the society since the close of war activities and it was well attended and much interest manifested.

A clinic was held by Dr. George Morgredge, superintendent of the Iowa institution for feeble minded children at Glenwood. Papers were presented by Dr. J. R. Wright of Knoxville and Dr. K. L. Johnson of Oskaloosa.

The company adjourned to the Lacey Hotel at 6:30 o'clock p. m. for dinner.

Dr. E. C. McClure of Bussey is the president and Dr. P. M. Day of Oskaloosa the secretary.

Physicians registered as attending the meeting were: Knoxville—Dr. J. R. Wright, Dr. White, Dr. Bridgeman, C. S. Cornell and J. M. Roberts. Pella—Drs. C. C. Fox, Fred Carpenter, Karl Aschenbrenner. Tracy—Dr. L. E. Park. Bussey—Dr. E. C. McClure. Glenwood—Dr. George Mogridge and Miss Irvin, assistant. Albia—Dr. T. S. Gray. Hiteman—Dr. Hungate. Beacon—Dr. J. A. Ruan. Sigourney—Dr. J. A. Dulin. Delta—Dr. Groothouse. New Sharon—Dr. A. C. Wallace. Eddyville—Doctors F. M. and Eppie McCrear and Dr. Shahan. Oskaloosa—Drs. P. M. Day, J. G. Roberts, C. J. Lukens, M. Childress, S. W. Clark, F. A. Gillett, E. B. Wilcox, K. L. Johnston, B. G. and E. Marsh Williams, L. A. Rodgers, W. S. Windle and C. M. Boss; Mrs. Dorothy Taylor, Miss Pattee and nurses from Oskaloosa hospitals.

The Medical Society of the District of Columbia and the Nurse Anesthetist

At a recent and largely attended meeting of the Medical Society of the District of Columbia the following resolution was adopted by a vote of over five to one of the members present.

Resolved, That the Medical Society of the District of Columbia go on record as in favor of the limitation of the practice of anesthesia to regularly licensed physicians, surgeons and dentists, and graduate nurses in cases of emergency or medical students for purposes of instruction.

As the Medical Society of the District of Columbia has a membership of 1237 physicians, a number greater than the membership of some fifteen other state medical societies, this expression of opinion carries a great deal of weight.

Efforts by proponents of the lay anesthetist to defeat this resolution by all sorts of parliamentary tac-

tics were voted down repeatedly and almost unanimously.

It is to be hoped that prominent anesthetists throughout the country will have their local, county and state societies take similar action. Also in support of the movement of the American Association of Anesthetists it is very desirable that every medical association be induced to pass the following resolution:

Whereas, The safety of patients, progress of surgery and hospital service demand the rapid extension of the specialty of anesthesia, therefore

Be it Resolved, That the.....State Medical Association hereby instruct its delegates to secure the establishment of a section on anesthesia in the American Medical Association at the Boston meeting, June, 1921.

Any developments in this connection should be notified to Dr. James T. Gwathmey, 40 East Forty-first street, New York City.

COMING MEETINGS

Annual Meeting of Southern Minnesota Medical Association

The annual meeting of the Southern Minnesota Medical Association will convene at Mankato, Minnesota, November 29 and 30, 1920.

Monday, November 29—The scientific program will begin at 1:30 o'clock p. m. Annual banquet at 6:30 o'clock p. m. Evening program at 8:00 o'clock p. m.

Tuesday, November 30—Annual business session at 7:30 o'clock a. m. Scientific program at 8:00 o'clock a. m. Luncheon tendered by physicians of Mankato, Minnesota, 12:00 o'clock m. Scientific program at 1:00 o'clock p. m. Adjournment at 4:30 o'clock p. m.

Physicians from outside of the state who will appear on the program are: Dr. Hugh Cabot, Ann Arbor; Dr. Emil Beck, Chicago; Dr. H. Winnett Orr, Lincoln; Dr. Reginald Fitz, Boston, now of Rochester, Minnesota; Dr. Reuben Peterson, Ann Arbor; Dr. Truman W. Brophy, Chicago; Dr. E. B. Freeman, Baltimore; Dr. Harry E. Mock, Chicago, and Dr. William L. Shearer, Omaha.

PERSONAL MENTION

Dr. Robert E. Jameson of Davenport was operated on recently for a perforating ulcer of the stomach from which he has made an uneventful recovery.

Dr. Edward Hornibrook, widely known and respected pioneer practitioner of northwestern Iowa, is seriously ill at his home in Cherokee.

Dr. O. W. McGrew of Grandview has located in Columbus Junction for the practice of medicine, taking the place made vacant by the removal of Dr. Huston to Burlington.

Dr. A. Groman, the pioneer physician of Odebolt,

has made arrangements to take an assistant into his office to relieve him of the more arduous duties pertaining to his practice. He has secured Dr. James McAllister. Dr. McAllister very recently was released from army service, having enlisted in the early days of the war. Before the war he was associated with Dr. G. A. Hartley in the hospital in Battle Creek and has had fine experience. He is a young man and will be valuable help in Dr. Groman's office. Dr. McAllister's home is in Omaha. Dr. Groman has been in Odebolt during all of his years of practice, starting in as a young man fresh from college. He is getting to that time of life where he needs a little more freedom and less strenuous labor. An able assistant will give him that advantage.

An addition to the list of Fort Madison's professional men was made when Dr. H. J. Patchin, formerly of Denmark, opened offices at 250½ Santa Fe avenue. Dr. Patchin, who for a number of years past has been located in Denmark, comes from Des Moines, where for the past year he has been a member of the staff of Dr. Bierring and Dr. Strawn.

Dr. D. Farrel Huston of Columbus Junction will locate in Burlington September 1, where he will treat ailments of the eye, ear, nose and throat. He has taken post graduate work in Chicago and New York.

Dr. J. M. Rock is now located in Davenport, having completed his internship under Dr. Dean of Iowa City. Dr. Rock has specialized in eye, ear, nose and throat work, and a bright future is in store for him. He is at present associated with Dr. Harkness of Davenport.

Dr. Arthur Gunderson who has just completed a special course in internal medicine at the Harvard Medical School in Boston, has decided to locate in Sioux City and will begin his practice there about September 1.

Dr. Winfield Scott Devine of Marshalltown, formerly of Iowa City has been appointed chief surgeon of the Iowa Soldiers' Home in that city. He has practiced there twenty years, locating sometime after his graduation from the college of medicine S. U. I., in 1887. He succeeds Dr. G. A. Mershon who goes to Mobile, Alabama, where he was practicing before he was appointed at the Soldiers' home two years ago.

Miss Martha Gaulke, for the past ten months superintendent of the Kings Daughters Hospital, has resigned her position and expects to leave for New York City where she will enter Columbia University.

Dr. J. S. Coontz of Garden Grove was elected secretary-treasurer of the Southwestern Iowa Medical Association at the recent meeting held at Murray. Dr. Harken of Osceola was elected president and Dr. Watt of Creston, vice-president.

Dr. Helen Johnston, daughter of Mr. and Mrs. R. S. Johnston of Columbus City, who graduated last year from the Columbia Medical University and later took special training at several of the big hospitals in Boston, has opened an office in Des Moines.

Dr. Pierre McDermid of Fontanelle, democratic

candidate for state senator from the Adair-Madison district, was in Adair recently greeting his many friends among both the democrats and republicans.—Winterset News.

Dr. John H. Peck, president, Mississippi Valley Tuberculosis Conference, has returned from Duluth, Minnesota, where he has been attending the annual meeting of the conference.

Dr. Lenna Means of the women's foundation for health, who was in the city to serve as medical advisor for the baby health conference at the state fair, will remain in the city for a two weeks' vacation before returning to New York.

Dr. Nyquist leaves for Cleveland where he will enter into surgical work exclusively.

Dr. John A. Rawlins of Ionia has removed to Charles City.

Dr. L. H. Ahrens of Lewis has removed to Mount Ayr where he will continue his medical practice.

Major J. W. Thornton of Ackley, who has been stationed with the 38th Infantry at Camp Pike for several months, is now on the staff of the U. S. Public Health Service Hospital, Greenville, South Carolina.

Dr. Julius F. Hill of Des Moines has accepted the position of pathologist at the new Community Hospital, Grinnell.

Dr. Eugene R. Smith of Toledo, Iowa, is removing to Wheatland, Wyoming. Dr. Smith is numbered among the older practitioners of the state, having been engaged in the practice of medicine at Toledo for forty years—a long period of service to one community. Dr. R. E. Anderson, Chicago, a graduate of the College of Physicians and Surgeons, Chicago, will assume Dr. Smith's practice.

OBITUARY

Dr. Frederick L. Appel of Muscatine died at his home, Tuesday, August 24, 1920.

Dr. Appel was born in Muscatine, December 29, 1881, the eldest son of William and Mary Appel. Graduated from the Muscatine high school in the class of 1898 and from the medical department of the State University Class 1902. Located in Muscatine where he practiced until the time of his death. He had been in failing health for about a year, suffering from chronic nephritis.

In 1908 Dr. Appel married Miss Mary Elizabeth Trafton, a graduate of the Benjamin Hershey Memorial Hospital Nurses Training School.

Dr. Rebecca Hanna died at St. Joseph's Hospital at Omaha, Nebraska, August 28. She went to the institution for treatment from Red Oak, Iowa.

Dr. Rebecca Hanna was born in Indiana in 1842, came to Des Moines county with her parents in 1878. The family located on a farm six miles west of the city. Miss Hanna studied medicine and practiced here for some time. During many years she

had been established in practice at Red Oak. She leaves a brother, Ernest Hanna of Red Oak.

George H. Alden was born near Abilene, Kansas, October 22, 1875 and died August 10, 1920 at Indianola aged forty-four years.

He was the son of Mr. and Mrs. Judson Alden. He received his high school training in Des Moines and graduated from the school of medicine at the University of Iowa. After serving an internship at Iowa City, he located as practicing physician in Indianola in 1902.

Dr. M. W. White, for almost thirty years a prominent physician and resident of Sioux City died at his home, 1611 Nebraska street, after a fifteen months' illness. He is survived by his wife, one sister and three brothers.

An illness which had existed since last March terminated in the death of Mrs. Jennie Byrnes at her home in Iowa City. Mrs. Byrnes was the widow of Dr. Thomas Byrnes, Sr., who for many years was a well known physician of Walcott. He died twenty-seven years ago, his widow moving to Iowa City two years later to make her home.

Mrs. Byrnes was born in Pennsylvania seventy-five years ago, coming West when a young girl. During their many years' residence in Walcott the family was actively identified with the life of the community.

Surviving are two daughters, Mrs. E. K. Kegel of Gainesville, Florida, whose husband died Tuesday morning, and Mrs. Walter Bierring of Des Moines; four sons, Dr. Thomas Byrnes, Jr., of Walnut, Iowa; Dr. Victory Byrnes, Durant; Dr. Ralph Byrnes of Los Angeles, and Dr. Roscoe Byrnes of Durant, and a brother, William Aleln, of Pennsylvania. Three children died in infancy and one son, Allen Byrnes, died eleven years ago.

The body was brought to Davenport for burial,

MARRIAGES

Dr. Ralph Lovelady of Sidney and Miss Fern Shannon of Sidney.

BIRTHS

Born: A son to Dr. and Mrs. Peterson of Forest City.

Born: To Dr. and Mrs. L. M. Pomeroy of Avoca, a son.

DR. GEORGE MILLER STERNBERG

Doctor Sternberg entered the army in 1861 as surgeon with the Union forces, and served throughout the Civil War and in the Indian campaigns, notably the Nez Perces War, a vivid account of which is

rendered in his biography. In the course of his tours of duty at eastern and southern military posts, he acquired valuable experience in combating cholera and yellow fever, and his expert advice was frequently in request when these diseases threatened to invade the country in epidemic form. He was the pioneer in bacteriology in the United States; he discovered the pneumococcus in 1880, and was the first in this country to demonstrate the organisms of malaria, cholera and tuberculosis. The practice of modern disinfection is based on Dr. Sternberg's researches on the value of commercial disinfectants, which work he started in 1878 at an isolated frontier army post. Under the same inauspicious surroundings he also invented a heat regulator, modified and elaborated forms of which are today in general use for the thermostatic control of heating apparatus.

As surgeon general he directed the medical activities of the army during the Spanish-American War, founded the army medical school, organized the nurse corps and the dental corps, and established many military hospitals throughout the United States, including the tuberculosis hospital at Fort Bayard. By the establishment of laboratories and by personal encouragement he inspired medical officers of the army to engage in research, to the development of which he had spent the best years of his life. Many scientific investigations were conducted during his term as surgeon general, the most important of which related to tropical diseases, typhoid fever and yellow fever. During the Spanish-American War he recommended the appointment of the typhoid fever board composed of Majors Walter Reed, Victor C. Vaughan and Edward O. Shakespeare, and suggested the searching investigation of typhoid fever in the military camps which led to the formulation of adequate measures of prevention.

From his first experience with yellow fever at Governor's Island, New York harbor, Dr. Sternberg's interest in the subject never flagged. He fought several epidemics of the disease in the cities and military posts along our coast and himself suffered a severe attack of the disease. He was a member of the first Havana yellow fever commission, the appointment of which was the immediate outcome of the wide prevalence and great mortality of yellow fever in 1878, and he made exhaustive studies of the disease in Cuba, Mexico, Brazil and other tropical countries. One of the most brilliant discoveries in the history of medicine resulted from his appointment of the yellow fever board, under Major Walter Reed, in May, 1900, which by human experimentation proved conclusively that yellow fever is transmitted by mosquitoes. The practical application of this discovery resulted in the eradication of yellow fever from Havana and contributed to the successful building of the Panama Canal. After his retirement from the army, he did much to improve housing conditions among the laboring classes in Washington, and toward the prevention of tuberculosis. He was the author of a manual of bacteriology and of several other works on special topics, notably on malaria,

immunity, serum therapy and infection. He had been highly honored during his life time, and was president of the American Medical Association and of many other scientific societies.

Journal A. M. A.

BOOK REVIEWS

THE TREATMENT OF WOUNDS OF LUNGS AND PLEURA

Based on a Study of the Mechanics and Physiology of the Thorax, Artificial Pneumothorax, Treatment of Empyemia, by Professor Eugenio Morelli, Assistant in the Medical Clinic of the Royal University of Pavia. Translated from the Italian by Dr. Lincoln Davis and Dr. Frederick C. Irving. W. M. Leonard, Publisher, Boston, Massachusetts.

During the war in the Italian service, Lieut.-Col. Lincoln Davis, M.C. and Major Frederick C. Irving in the closing weeks of the war, enjoyed the opportunity of observing the work of Major Eugenio Morelli in charge of a hospital attached to the 11th Italian Army Corps especially devoted to surgery of the lungs and pleura. Professor Morelli had been a pupil and follower of Professor Carlo Forlanini in the study of diseases and injuries of the lungs and was therefore placed in charge of this branch of the service.

The observations of Drs. Lincoln and Irving led to the translation of Professor Morelli's book. A considerable portion of the book is devoted to war injuries but as injuries in civil life, especially injuries in the industries and in transportation involve the same principles, and are frequent enough. The incidence of war has furnished material to establish certain important facts whether in military or civil practice.

An important principle in injuries of the lung is to secure rest by means of artificial pneumothorax as was shown by Forlanini and Prof. J. B. Murphy in the treatment of pulmonary tuberculosis. Hemothorax which rather frequently occurs in the accidents of civil life as well as military practice, should be evacuated and a pneumothorax established by artificial means or by closing the open wound to encourage spontaneous pneumothorax. Prof. Morelli strongly objects to the principle of not evacuating the hemothorax on the theory that the hemorrhage compresses the lung and arrests farther bleeding. He believes he has demonstrated that immobilization of the lung can be obtained with a pneumothorax and that the evacuation of a hemothorax is without danger and that the pneumothorax ought to be maintained until the lung is presumed to be healed. Morelli advocates the same procedure in serous effusion. The method by which this may be accomplished is illustrated in the treatment of empyemia, Morelli describes a method and apparatus which has

(Continued on adv. page xviii)

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BOOK REVIEWS

(Continued from Page 398)

many advantages although somewhat complicated.

To illustrate the method employed and the results obtained sixty-five cases are considered in considerable detail. This book is a valuable exposition of the Italian method of treating injuries and diseases of the lung and pleura, in part as a war record but equally as a record of principles to be observed in civil practice.

THE DUODENAL TUBE AND ITS POSSIBILITIES

By Max Einhorn, M.D., Professor of Medicine at the New York Post Graduate Medical School; Visiting Physician to the Lenox Hill Hospital, New York City. Octavo of 122 Pages with 51 Illustrations. W. B. Saunders Company, 1920, Cloth \$2.50 Net.

The purpose of this book is to show how the secretions of the digestive tube may be secured for study. The importance of a definite knowledge of the function of the digestive fluids unmixed and uncontaminated is well known but how to secure the digestive secretions unmixed has been the problem. Prof. Einhorn presents an outline of the efforts from the discovery of the stomach pump by Kussmaul to the development of his own methods. Each step in this direction is pointed out. In 1908 Dr. Einhorn published a paper setting forth his method of measuring the permeability of the pylorus as a preliminary to entering the duodenum and by means of the duodenal bucket secure the duodenal contents directly and thus determine the permeability of the pylorus, obtain the duodenal contents for examination and localize ulcerations along the path of thread. Having worked out the fundamental principles involved, the development of details follow.

With chapter two comes a discussion of the diagnostic import of the duodenal tube. Chapter four, the duodenal tube as a therapeutic means. Chapter five, other instruments for the pyloric duodenum and small intestines. All these means and technic are complicated and difficult and require close study and practice.

The text is carefully written and well illustrated. The author admits that much is yet to be worked out but believes that our future accurate knowledge lies in the direction pointed out. He has written much on the subject but we have now his method of work presented in a separate volume.

SIMPLIFIED INFANT FEEDING WITH 80 ILLUSTRATION CASES

By Roger H. Dennett, B.S., M.D., Associate Professor of Diseases of Children, New York, Post Graduate Medical School, with 14 Illustrations, Second Edition Revised and Enlarged. J. B. Lippincott Company, Philadelphia and London.

This book opens with a synopsis of text, a con-

venient outline of its contents. The book will be found an excellent clinical manual in the treatment and management of children's digestion and nutritive disturbance and well adapted to use of the visiting nurse and the mother who is interested in the welfare of her child. It is elementary and quite within the reach of the educated mother. It will also be helpful to the busy general practitioner who has little time to work out the details of a diet for distressed children.

MODERN SURGERY, GENERAL AND OPERATION

By J. Chalmers Da Costa, M.D.; Samuel D. Gross, Professor of Surgery, Eighth Edition, Revised, Enlarged and Reset. Octavo of 1697 Pages with 1177 Illustrations, Some of Them in Colors. W. B. Saunders Company, 1919, Price \$8.

We have on a previous occasion reviewed in some detail Da Costa's surgery and we again bring to the notice of our readers this very helpful work particularly adapted to the needs of the general surgeon and to the general practitioner who must of necessity do more or less surgery.

THE MEDICAL CLINICS OF NORTH AMERICA

May Number Containing an Index to the Volume. Published Bi-Monthly. Price \$12 Per Year.

This is a Chicago number and contains medical clinics of sixteen well known physicians.

Dr. Mix presents a patient suffering from Lethargic Encephalitis and points out the special features of the disease.

Dr. Isaac A. Abt presents a symposium clinic, one of which is a demonstration of the Schick test, a subject in which the general practitioner is interested. Another interesting clinic is by Julius H. Hess; the Care of Premature Infants.

THE SURGICAL CLINICS OF CHICAGO

June, 1920. Published Bi-Monthly, W. B. Saunders Company, Price \$12 Per Year.

Dr. Allen B. Kanavel considers with his usual care and thoroughness the treatment of Empyema, a clinic well worth careful study. Metastatic Abscess of the Prostate is a subject for the surgeon's consideration, by Dr. Kretschmer, and Perforated Gastric Ulcer, by Dr. David C. Straus, is interestingly presented. Dr. A. D. Bevan comes with his usual large and interesting clinic. Dr. Alfred A. Strauss presents a valuable clinic on Intussusception, a subject of great importance.

Dr. E. L. Cornel gives a clinic including important obstetrical questions and Dr. Daniel N. Eisendrath considers Tuberculosis of the Hernical Sac. The last that we have space to consider is a clinic by Dr. E. L. Moorhead on Acute Appendicitis nad Gall-Stones.

The Journal of the Iowa State Medical Society

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DES MOINES, IOWA, DECEMBER 15, 1920

No. 12

PSYCHIATRY AND THE GENERAL PRACTITIONER*

MAX E. WITTE, M.D., Clarinda State Hospital

*"Can'st thou not minister to a mind diseased;
Pluck from the memory a rooted sorrow;
Raze out the written troubles of the brain;
Cleanse the stuffed bosom of that perilous stuff
Which weighs upon the heart?"*

In the popular mind, and even that of the better informed of our own profession, much that is obscure, ill-defined and not well understood, still obtains about the subject of insanity. People generally believe that something mysterious has come into the life of an individual and attaches to him, so that on the whole the subject is shrouded in mysticism and obscurity, and the questions and remarks addressed to me often by people who are well informed on matters generally, reveal that when it comes to talking about insanity the prevalent ideas are very vague and nebulous. Much is said that would be very amusing were it not so serious and were it not concerning one of the most serious subjects that can occupy the human intelligence. To many the insane person is still one who by his behavior is very amusing and comical and to be laughed at or one who is terribly violent and dangerous, hence to be feared.

But of recent years people are beginning to have a better understanding and a clearer light on the way and the unfortunate insane person is understood to be sick, gravely, even tragically sick.

Insanity is a general term which embraces a multitude of morbid conditions, all, however, attended by mental disorder varying from the gravest mental disorganization and disruption to almost imperceptible deviations from the normal, with all degrees, intensities and variations intervening between these extremes. Until quite recent times our own profession concerned itself with the study and care of man as a perambulating physical and chemical laboratory, and when

disorders came in to be corrected the problems were of a mechanical or physical or chemical nature. But the thoughtful general practitioner in his dealings with the person in his home or at the hospital or wherever his services were required learned to recognize the dual nature of man and to distinguish a difference, not physically but psychically in the personality, between a man say like Abe Lincoln and the "man with the hoe." The successful practitioner in his treatment of the sick learned to recognize the prime importance of considering and making due allowance in his treatment and care for this other greater and nobler part of man. But unless he was exceptionally wise and had had extensive experience, well utilized, he was unable to observe and appreciate the early beginnings of disorder of a serious character affecting the brain and nervous organization underlying mentality. That the general practitioner should be able to do so is of the very utmost importance, for it is he who first sees the afflicted one and at a time when most can be done for him.

Insanity, in the larger proportion of instances, is, to begin with, a functional disorder, wherein the material changes are minute, perhaps even molecular, and it is during this time and with this class of disorders that much can be done to correct the aberrations from the normal, and in many instances to obviate an open and frank breakdown, or, if this cannot be prevented, to place the patient in the best surroundings conducive to restoration and health. As a matter of fact we find that of all the patients committed to our care at a hospital such as that at Clarinda one out of three will recover and be returned home to again take his allotted place in the commonwealth. This embraces all patients, those who are old, tottering, close to the grave, and in whom there is no hope of health any more than of returning youth; those organically diseased with grave changes in the nervous system going on which cannot be halted or remedied, and where mental ablation and death are the only end; and those in whom the time for improvement has been worse than

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lost and the trouble has become chronic with mental loss and enfeeblement to such an extent that only a miracle could induce changes for the better—in fact all cases as they come haphazard to the institution.

Now, an analysis of our statistics also shows that if we could receive all these cases, including those for whom there is no hope, in the very beginning of the trouble, we could return to home, friends and usefulness two out of every three.

You will make from these findings two deductions,—First, that insanity is not, as is generally believed, a hopeless and incurable disorder, but, rather, that under favorable conditions it is really a very recoverable disease, and, secondly, and I wish to emphasize this more particularly, in order to bring about good results it is of the very greatest importance that the patient should be brought under suitable care early,—the earlier the better, and if I can impress this fact upon your minds so that you will bear it away with you, the purpose of my paper will have been well served. After what has been said it will appear to you as still more important that the disorder should be recognized very early, in its very inception, when often an actual breakdown and the necessity of special care and treatment can be avoided.

Some general considerations for this early recognition are in place, bearing in mind, however, that at best the subject is one of considerable difficulty, as it will appear to you upon a little reflection. And to make it somewhat easier for you to carry with you all possible light on the subject it may be well to briefly consider some few fundamental matters in connection with the subject, the remembrance of which will enable you carefully and circumspectly to tread your way in situations where at best many obscurities and shadows prevail and where you properly ask for such illumination as may be obtainable.

The causes of insanity are innumerable, but after all has been said and done, the outstanding facts are that the vast majority of mental troubles are of a biological character. Heredity plays by far the most important role, and is the predominant factor in two-thirds of all cases that have come under my care and observation. These poor people are the victims of an adverse heredity and carry within them from before birth a stock weakness transmitted in the germ plasm from parent to offspring, and this so far as we can determine, according to the Mendelian law. They have a constitutional instability of nervous organization predisposing to insanity, epilepsy, feeble-mindedness, hysteria, neurosis of a familial type, and other disorders involving nervous la-

bility. These two-thirds are the important problem in the entire situation and belong to the group of disorders which is truly the "white man's burden."

In the other third coming under care the disorders are various but usually mean actual injury, undue stress and strain with exhaustion of the nervous system, and then some are a resultant of the irritation of toxins generated by and in connection with infecting, disease-producing germs, or are due to pathological changes in metabolism caused by disorder of the endocrine glands.

From what I have said you will infer that the etiology in many of these cases is still very obscure in the light of present knowledge. However, we do know that people break down nervously and come under care on account of having sustained actual traumatism of the brain due to violence, to actual somatic brain disease, to stroke, to irritating toxic influence of germs of the infectious diseases, and, above all else, to the wear and tear of the struggle for existence in modern life, causing nervous exhaustion, often to the point of prostration; and we may draw attention right here, for fear that it may be overlooked later, to the fact that where we can determine the causation of the disorder we have an indication for treatment looking towards restoration.

What is insanity? Definitions, like classifications, are a multitude, and each one has a favorite, but one of the simplest definitions, which will give you best service as a measure and guide in the determination of the disorder, is of a strictly psychological nature and based upon a scientific foundation and reads as follows:

"Insanity is the prolonged departure from a normal mode of feeling, thinking and willing (or acting) without adequate external cause and due to disease of the brain."

Insanity is disease, then, pure and simple. It is a diffuse disease of the association system in the cerebral cortex and is shown by disorder in the thought and behavior of the individual. Reflection will reveal that this is all that can be read out of the above definition, so far as our observation and study of our patient is concerned.

This definition must serve as a measuring tape to enable us to differentiate the sane from the insane. It is the only means we have also of determining the earliest deviation from the normal in the beginnings of the disorder. The definition is the best I know and is the most serviceable, and yet it is imperfect and that imperfection is located in the one term "normal." What is the normal mode of feeling, thinking and willing for any given individual? This must be determined for

each person under examination and the number of considerations and factors to be investigated are practically endless. And the justness of our conclusion will depend upon the clearness and thoroughness with which we have investigated and weighed, and the discrimination we have shown in the study of the attributes that go to make up the individual. We have to consider the innate abilities, capacities, as well as opportunities, of the person under consideration, his limitations, his weaknesses and defects, innate and acquired as well—in fact everything that may be subsumed under the general terms “nature” and “nurture.” We expect a different mode of feeling, thinking and willing in the case of the cultured and educated European than we do in the Hottentot or Australian Negrito. We expect less from the undeveloped child than we do from the educated and trained adult. We expect a different reaction from a person in health than in disease; a different outlook and response to the demands of life from the person in affluent circumstances than from the person who is bound to daily toil by force of circumstances and as it were in chains forged by inheritance. So, many, many considerations enter into this final conclusion as to what is normal in a given case, and here our difficulties come in as a little reflection will show.

But, while we may not attain to perfect results, we can approximate within the limits of our ability and practically we may say that we expect each normal individual to react to the ordinary demands and calls of life as would the average individual with the same opportunities and approximately the same qualities in the same community.

In the early beginnings of mental disorder we should, therefore, expect to observe a deviation from what is tacitly expected as normal by friends and others for the individual and for others like him in his surroundings.

Let us observe what really takes place when a patient is brought to the hospital accompanied by friends and we ask, “What were the beginnings of the disorder?” “What did you first notice was wrong?” The father or some other member of the family will say, “Oh, John suddenly became violent and unmanageable while at the supper table a few evenings ago and since then has been so disorderly and violent that we have been afraid of him and have been unable to know what to do with him.” However, the mother will usually say, “We had no thought of such a thing or that John was insane, but I have noticed that he was not right for some time before that;” and more questions will reveal the fact that there was a

change in John and an analysis of what is said about it will reveal that there was a change in John's disposition and consequent behavior. And no matter how far we carry our interrogation we do not get away from this fact.

Now, what is our disposition? Our disposition is our habitual reaction to our prevailing states of feeling, meaning by the latter term our emotions, affections, passions, instinctive trends and impulses, and it is in the field of feeling that we really find the earliest manifestations of this disorder. We might have expected this *a priori* for feeling is the most fundamental and earliest mental field in man either as an individual or as a member of the human race. Long before the babe can think or appreciate or understand he is aware of being comfortable or in discomfort, of enjoying pleasure or of suffering pain, and reacts accordingly. So, in the morbid change coming on in the mental make-up of the individual afflicted with insanity, we find this field of inner mental life earliest, and, in many forms of insanity, exclusively disordered, and the behavior of the individual thereby modified and changed accordingly.

According to our definition, then, if we find in an individual whose personality has been of a certain mental make-up a radical change in disposition, character and behavior without a corresponding explaining alteration in circumstances or conditions, and this change is of considerable permanence, we should think of insanity. And this, especially, in connection with antecedent factors, either in the heredity or in the life experience of the individual, favoring disorganization, unsettlement and weakness in the person. We shall, at the very earliest, find the emotions, affections, passions and instinctive trends unduly elated and exalted, or depressed. In certain forms of mental disease, particularly dementia praecox, the feelings are markedly reduced and weakened, as shown by indifference and apathy in the patient. We should not only think of insanity but study carefully and exhaustively and to the best of our ability and light we may be able to obtain in the premises. Early recognition means so much to the individual, so much to his family, so much to the commonwealth.

In the diagnosis even of frankly declared insane conditions we have no physical instruments of precision or of aid to our senses like we have in disease elsewhere, for, while in some forms of insanity there is a disturbance of the thermic function and in all more or less disorder of metabolism, it usually requires considerable time to show this conclusively, and we cannot await this under circumstances when time for early treat-

ment is of paramount importance.

In openly declared cases of insanity we find unmistakable symptoms which when present are pathognomonic, as it were, of the mental disorder. These are usually, psychologically speaking, in the field of thought and are (a) perceptual and (b) conceptual.

Under the perceptual disorders we have illusions and hallucinations. An illusion is a false perception; i. e., a stimulus activates an organ of special sense or general sensibility, but the sensation is misinterpreted in consciousness and is perceived as different from what it really is. An hallucination is a purely subjective perception to which there is no corresponding object. It is purely central and the sufferer perceives something which does not exist.

Illusions and hallucinations more particularly are of diagnostic and prognostic importance and if present are strongly corroborative of the diagnosis of insanity; but herein I wish to warn you particularly that they are not absolutely so, for we can have hallucinations and illusions in the sane. The final mental attitude of the individual affected distinguishes between sanity and insanity. If the person affected absolutely believes in the objective truth of his illusion or hallucination he is insane; but the sane person suffering an illusion or hallucination is open to correction of his belief by reason and by production of contrary evidence.

Conceptual disorders diagnostic of insanity are: obsessions and delusions, of which the delusion need only take up our time because here is where so much error comes in the diagnosis and in understanding of the subject. A delusion is an irrational false belief, and is distinguished from an erroneous idea which the sane may hold, by being held in spite of and against all contrary evidence that may be produced. It is, furthermore, a morbid product and as such occupies an inordinate and dominant position on the stage of consciousness of the individual affected.

In making the diagnosis of insanity it must be borne in mind, however, that important as are hallucinations and delusions they involve one field of mentality only, and we may and actually do have much mental disorder without the field of thinking being involved, and wherein we have disorders in the spheres of feeling and of willing only and exclusively. A person may be seriously insane, lamentably insane, tragically insane, and yet not have a single disordered thought or perception. Some of our important groups and special forms of insanity are distinguished in their beginnings and often entirely confined to disor-

ders of feeling and the other fields are involved only secondarily.

However, our conduct (in the field of our will) is so intimately depending upon our feeling that when and whenever we find any material and enduring change in behavior we should be on the alert and investigate the underlying feelings of the individual, his emotions, his affections, his passions, his instinctive trends. And where the alteration is morbid and depending upon bodily disorder or adverse influences in the environment we should step in promptly and modify and change these so that the mind in danger of wrecking may be steered out of the breakers.

Many of these people may be treated at home, thus avoiding the annoyance of a commitment to a hospital or sanitarium. The bodily functions should be looked after. Particularly should sleep (which is almost invariably disturbed and broken) be restored and the nervous system, irritated, worn and harassed by irritating psychical and physical influences, be given an opportunity to restore itself and return to health. We find, usually, much disorder in elimination as well as in nutrition. All this should be looked after and brought up to a proper state of activity. Often for obvious reasons, amongst which may be reckoned overly solicitous friends, home treatment is not advisable but early removal to other surroundings where rest and quiet may be obtained, is urgently indicated. Often the mere fact of the removal of the sufferer out of his old environment and the irritating conditions and influences which helped to bring on the disorder is all that is necessary. The wisdom of the general practitioner is not only challenged in the recognition of the approaching trouble but also in his choice of means for its avoidance.

In many forms of insanity the patient himself has insight into his trouble and a premonition of coming disaster. In this prodromal period he gladly comes for counsel and help and will most willingly cooperate in treatment and comply with such measures as may be necessary. But he shies at going for special treatment to the Clarinda State Hospital or any other institution exclusively devoted to the care of the insane. He balks at the notoriety of official commitment.

Some of us for many years have labored to supply this need of those in the early or even pre-insane stages of mental disease. Our people by the last legislature have responded magnificently. The State Psychopathic Hospital as an integral part of the State University Hospital system is an established fact. Now the sufferer in the nervous system with impending mental breakdown

may go there for relief either voluntarily or under compulsion by friends and authorities, and if he is unable to defray the nominal expense, the state bears it. He can go all the more readily since it is to a part of a hospital where the sick of all kinds of diseases are treated.

The State Psychopathic Hospital answers the question, Where shall the general practitioner send his incipient cases of insanity? A free and by all means a timely use of this expedient will go far to avoid much open insanity and subsequent suffering to patient and friends alike.

Then, in behalf of the future, for the well-being and welfare of generations still unborn, the general practitioner may labor now and efficiently.

From what has been said and from what you know, it appears beyond the shadow of a doubt that an inherited constitutional weakness predisposing to an unstable organization of the nervous system is the one basic cause of much the most insanity as well as kindred disorders. For, be it remembered, insanity is but one phase of an involutional group in our human family, the other phases being idiopathic epilepsy, feeble-mindedness in various forms and degrees, various inheritable neuroses, defects of character and the like.

Now the inherited and inheritable constitutional weakness, degeneracy, as it is called, does not permeate our people as widely or seriously as might be supposed. Dr. Fernald made a survey of the state of Massachusetts as to feeble-mindedness some years ago. He found—and mark you this—that 90 per cent of the feeble-mindedness in the state was furnished by only 5 per cent of its families. The deduction is obvious. I am fully persuaded that what holds true there also is true with us; and what is true in regard to the feeble-minded also is true of the insane and other forms of nervous inadequacy on a constitutional basis. What will you do to remove or at least reduce this trouble? Legislate it out of existence? Nay, my friend; it can not be done. At least not at this stage. Laws to be effective and beneficent must express the enlightened popular will. And the people cannot have this until they have been fully and fairly informed. And for this popular education in matters eugenic we must have concrete facts.

The State Medical Society, by its representatives, has adopted a resolution, now in the hands of its legislative committee, recommending to the next legislature the establishment of an organization under the auspices and in connection with the extension department of the State University but with its central seat at the state capitol. This organization is to have a double function, that of

exploration and of teaching. It will actively consist, then, of field workers to seek out and study the sore spots in the human family in our state with cooperation of communities elsewhere. Again, there will be teachers and instructors of our people touching these genetic matters.

After a general popular education in eugenics we may expect results not only in the enlightened conduct of the people in themselves but also from restrictive legislation. The general practitioner is more than any other the immediate guardian of the health, present and future, of our people. I ask you in behalf of those who are to appear after us on this good old earth of ours, each and every one of you to constitute yourself a committee of one and interest your representative and senator in this most momentous matter.

We would suggest that the reader of Dr. Witte's paper consider the report of the special committee on eugenics published in the *Journal of the Iowa State Medical Journal* of July, 1920, is as follows:

Editor.

Since the problem of eugenics, for the reduction of degeneracy, is so vast, and its solution so fundamentally depending on the better information of our people, your committee, after careful study and due deliberation respectfully ask the adoption of the subjoined recommendation, by the Iowa State Medical Society.

And furthermore, your committee would lay upon its members, individually and collectively, the solemn duty of urging, and by all legitimate means, bringing about, the enactment of its provisions, respectively, by state and national legislative assemblies.

The recommendation is as follows:

For the reduction of degeneracy, it is recommended by the Iowa State Medical Society:

First—That the state legislature establish and provide for an organization of:

(a) Field investigators, to investigate and gather all obtainable information regarding degeneracy in our midst. These field workers are to be assisted by data in possession of all institutions, under the several boards of control.

(b) Popular instructors, who are to teach and inform the people, in matter of eugenics, and avoidance of degeneracy. They are to instruct the teachers at their institutes; the populace, at chautauquas, fairs, and other public gatherings, and with clinics at stated times, at county seats, and important cities, high schools, normal schools, and colleges.

This organization of field investigators and instructors, is to be in connection with, and under the direction of, the extension department of the State University; with its central office at Des Moines; and it should have a director for, and in each congressional district, with authority to organize his district into smaller sub-districts.

It is also, to establish and enlist the harmonious co-operation of similar organizations in other states, towards a common end—the betterment of our race.

The extension department is to report, relative to the activities of its eugenics branch, to the State Medical Society, at its annual meeting.

Second—Our senators and representatives in congress, should be urged to bring about the appointment of a medical man as secretary of public health, and as a member of the president's cabinet, under whose direction, the campaign against degeneracy, and other important activities for the welfare of our people, may have governmental authority, and nation-wide scope.

THE ROENTGEN RAY IN THE DIAGNOSIS OF SINUS DISEASE*

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According to Ballenger¹ roentgenology of the sinuses is a "shadow transposition of different densities of bones of the skull modified by disease or conditions such as, age, sex, disease, thickness of bone of face and skull, asymmetry, altered mucous membrane, inflammation of the sinuses, inflammation or suppuration adjacent to the sinuses, tumor formation, angle of exposure."

A good plate is essential first, as far as this aid to diagnosis is concerned and in order to get this several things must be taken into consideration. The technic may be left largely to an experienced roentgenologist but we should ourselves be familiar with certain phases of it.

Several positions of the patient and tube are used, depending upon which sinuses are suspected. In some positions one group of sinuses would be blurred by being superimposed upon another group or upon dense bone like the petrous portion of the temporal, at the same time showing most clearly the sinus in which perhaps at the time we are most interested. Two positions are mostly commonly used, namely the postero-anterior and the lateral, the latter of which is sometimes stereoscoped. Four additional positions are used, the oblique position of Rhese, for the ethmoids; the extended chin position of Waters and Waldron for the maxillary antrums; the Bowen or Pfieffer position for the sphenoids. The Caldwell position is commonly used for the frontals. It is not necessary as a rule to make more than two plates but knowledge of the other positions is of value in case one wishes to make a more minute study of one special sinus or group of sinuses.

The postero-anterior position commonly used in routine examination is that of Waters and Waldron² or some close modification of it. It is possible by this method to show the frontal and maxillary sinuses, the anterior and posterior ethmoidal cells on the same plate without obscuring the antrum outline by shadows of the petrous portion of the temporal bone. One must be exact in each individual case and associate oneself with the type of head, that is, the convex and concave face, although the only difference in technic is a variation of two degrees in the vertical axis of the skull.

"The patient is placed face down on a horizontal table, the chin resting on the cassette holding the plate and intensifying screen. A compression diaphragm, 18 c.m. in depth is screwed tightly down on the occiput with a felt pad 2 c.m. thick interposed. Approximately an angle of 45 degrees is formed by the vertical axis of the head with the plate. The chin must rest on the plate and the long axis of the tube must parallel it. The nose of the patient should be from one to one and one-half c.m. from the plate and under no conditions should it touch the plate. If the face is concave the distance should be 1½ c.m., if convex 1 c.m. from the plate. The long axis of the tube remaining at all times parallel with the plate. Therefore, it is the distance of the tip of the nose from the plate with anode of the tube parallel to it that enables one to successfully make a roentenogram of sinuses without projecting shadows of structures of the base of the skull and petrous portions of the temporal bone into the maxillary antrum. Soft tubes with intensifying screens are used to obtain the greatest detail." The frontal sinus being from 4 to 5 c.m. from the screen does not produce appreciable distortion or impairment of definition. The shadows of the ethmoids extend downward and laterally almost to the nasal floor, the posterior shown below the anterior. In antrums the petrous portion of the mastoid falls below the floor giving a non-superimposed view. This position, to me is the most satisfactory, although several slight modifications give practically the same results.

The lateral view is one in which the patient is placed on his side, the central ray passing through the middle of his zygomatic arch. It is taken mainly to ascertain the depth of the frontal sinus, sella, etc. Little detail of the sinuses is shown in this position, although there are several things worthy of attention to be seen in this plate which will be brought out later.

In the oblique positions of Rhese¹, right and left, the object is to project the sphenoids and

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posterior ethmoids through the orbit and it is accomplished by touching the tip of the nose, the brim of the orbit and the malar bone to the plate, and passing the ray through the region about two inches posterior and one and one-half inches superior to the external auditory meatus. This should project the optic foramen near the center of the orbit. To the medium side and below is the sphenoidal sinus and above is the frontal sinus. The ethmoids occupy the space below the frontal and external to these sphenoids. The best position for the antrum is that of Waters and Waldron.

The sphenoidal sinus is the most difficult to get and the least satisfactory where the diagnosis of pathology is concerned. The two most commonly used positions for this sinus are those of Bowen³ and Pfeiffer¹. In both the two cavities are shown side by side, non-superimposed on any of the other sinuses. In the Pfeiffer method the patient extends the head with the chin forward over the plate and the central ray passes vertically through the head in the median line at a point 2 c.m. in front of the external auditory canals. In the Bowen position the patient is placed on the table in the ventro-dorsal position, the head is dropped over the end of the table to a support four or five inches lower. He uses a small lateral clamp, and accessory table and sandbags with a muslin bandage for further fixing the head. The top of the accessory table is tilted so that it is parallel with a line drawn between the external auditory meatus and tip of the nose. The tube is centered in a line from the mid-larynx to mid-chin, to a point one inch anterior to the external auditory meatus; with the central ray perpendicular to the above base line and the plate. The plate is beneath the head on the tilting accessory table in a small stereo-cassette. The position is considerably like that used in broncoscopy. Some objection is made by various men to both of these positions because of the distance of the sinuses from the plate, which they claim produces distortion; but it is the only method that I know of whereby the sinuses may be taken separately, not superimposed on other sinuses, and it gives us some idea of their lateral size, shape and position.

The Caldwell⁴ position is a postero-anterior position, also much used and is especially good for the frontal sinuses. "The patient is placed face down with the forehead and nose on the plate holder with the tubular part of the compression apparatus on the back of the head. The plane of the rays through the skull is a mesial one to the glabella and a line drawn through the center of the external auditory meati." He uses a twenty-

five degree angle from the principal ray to the basal plane. If taken correctly one should get the shadow of the orbital plate of the frontal as a transverse line about one-half inch below the supra orbital ridges.

I have not mentioned the time of exposure, character of the ray, etc., except that, prolonged soft rays are liable to cause alopecia, or dermatitis; while a hard penetrating ray tends to give lack of definition. If a fast plate is used with intensifying screens a soft ray may be used over a short space of time with good definition. A soft ray may be used for a longer time with proper filters. At Fort Dodge we have had very good success, in moderately thick skulls, by using Eastman duplitized films with intensifying screens, and a soft ray from four to five seconds. The technique for each position should be as exact as possible, the current steady, with a transformer especially for the machine so that all pictures may be taken as uniformly as possible. A reasonable amount of care and skill should get good pictures.

The interpretation of the plate depends on several things, namely: A thorough knowledge of the anatomy of the skull, sinuses, and their variations, a properly taken and developed plate, the clinical history and findings, and the age, race, pathology adjacent to the sinuses, as given in Ballengers definition.

It is obvious that familiarity with the anatomy of the sinuses and their variations is essential, and must be kept in mind while examining the plate. If a sinus is blurred we must be sure that it has not been superimposed, by faulty technic in position, upon the dense bone of some other portion of the skull. By remembering where these dense portions should come in the plate, as explained previously, we can check the plate by finding them in the proper place. The anatomical variations of the accessory sinuses are very numerous. Dr. H. J. Prentis⁵ has noted and clearly shown a great many of these, and their possibility should always be kept in mind. The variations of the ethmoids are especially numerous and the cells may encroach upon almost any of the other sinuses. It is only by very close examination at times that these anomalous positions are seen. The maxillary antra are probably the most uniform of any of the sinuses. The age of the patient should be kept in mind, remembering that at birth the ethmoids are present only as spongy masses with the antrum in a very rudimentary form. The frontals and sphenoids are wanting although the naso-frontal duct is present. In order of development the ethmoids come first, followed in turn by the antra, frontal sinuses, and

sphenoids. Well developed ethmoids and antra are present at a very early age and the plates should be examined closely for signs of pathology when these sinuses are suspected in children. The knowledge of the variations is also of use clinically in deciding upon operative procedure and in looking for the cause of trouble in post-operative cases.

The clinical history, symptoms and examination should always be kept in mind while examining the plate. In certain cases the history and local findings make a roentgenogram seem superfluous and a plate is simply taken to obtain a better idea of the anatomy of the sinuses for operative purposes. In other cases the plate alone shows the pathology, while the history of local trouble, symptoms, and clinical findings seem practically negative. In other cases the x-ray not only confirms the clinical diagnosis but gives us a good idea of what pathology is present and what procedure is best in rectifying it. Thus if we get a history of recurrent maxillary trouble we suspect a diseased mucous membrane, a thickened perosteum, new growth, etc., and the plate will often show which condition is present and enable us to proceed intelligently. We may wash out the sinus and obtain a large amount of pus; or the washings may be negative and still there may be present a badly diseased sinus as shown by the x-ray. Without a naso-pharyngoscope the x-ray gives one a better idea of the condition of the interior of the sinus than any other aid in diagnosis.

The question arises as to how we diagnosis a certain pathological condition of the sinuses from a shadow shown in that location upon a plate.

Caldwell in an interesting series of experiments shows that the shadow cast by a fluid, such as water, pus, etc., in celluloid containers of the same size, by the x-ray was practically the same. With mucous membrane dried and soaked in the water the latter cast a much denser shadow. In sinuses in cadavers to which water, gelatin, mucous membrane, etc., had been added, he could distinguish by the shadow which sinus had been filled. Gelatin in controls cast the same shadows in the sinuses of the cadaver as pus or edematous mucous membrane. He found that the extent, variation, and location, of the sinuses could be determined with sufficient accuracy for surgical purposes. Practically therefore, an edematous mucous membrane will cast just as dense a shadow as pus and vice versa; or both may be present. If we wash out a sinus therefore, that is blurred in the plate and get no pus we must not conclude that it is negative, or if we get a large

amount of pus we must not conclude that all of the pathology in the sinus is removed. I believe I am safe in saying that if the plate shows one of the larger sinuses blurred, (provided the technic of taking it is correct), or if the septa dividing the smaller sinuses are obliterated, providing there has been no previous operative interference; that there is pathology present in the sinus.

According to Law⁶ it is well to take the lateral plate and look at the frontal sinus first. "We must know the history, symptoms and clinical findings before attempting to diagnose plates. In the lateral plate of the frontal sinus we note the depth of the sinus and the thickness of the anterior wall. This will determine the amount of shadow cast if it is normal. A sinus with a thick wall will cast a lighter shadow than one with a thin wall. Hence a thin walled sinus with granulations or thin pus will cast the same shadow as a thick walled normal sinus. A sinus with a thick wall which is uneven in density will cast a splotchy shadow which will resemble polypi or granulation tissue. In case of a single frontal sinus the bony detail of the solid sinus area will show through the transparent shadow of the single sinus, thus differentiating it from a sinus full of dense material. This, with the absence of a sinus outline on the anterior-posterior plate, proves the absence of a sinus on that side. Dense polypoid material or tumor will cause a diminution of the shadow of the frontal sinus and the antra in the lateral view, while simple pus causes very little change. From the lateral view we also gain some idea of the sellar region and if it is suspicious stereo-plates should be taken. All cases referred by the eye surgeon require plates taken in all three positions and preferably stereoscopically. We also notice the condition of the teeth, especially those in the floor of the antrum and the third molars. If it is necessary for better detail of the teeth, films should be made. The outline of the vault should also be examined for indications of pressure or changes in density. In the postero-anterior plates we note the presence or absence of frontal sinuses, the presence or absence of supra-orbital cells or of cells in the christagalli. The latter may have influence on the persistence of trouble following frontal sinus operations. In some of the plates it is impossible to differentiate between pus and granulations in the frontal sinus, but in these cases the history will be of help. If there is a discharge from the nose and pus can be seen coming from the region of the sinus, it is reasonable to conclude that pus is present. If there is intermittent pain and an

occasional discharge it is most likely that there are dense granulations and some pus. A discharge of pus from the frontal sinus is likely to be accompanied in the plate by clouding of the ethmoids, while with granulations the anterior ethmoid cells are usually fairly clear.

In the ethmoidal sinuses we note the appearance of the cell wall, a haziness does not necessarily mean pus as a hypertrophied turbinated bone may cause it, but if the septa are obliterated in both plates there must be pus or a tumor present. Pressure in the ethmoid region often causes pain and we should examine the plate for signs of it in that region.

In the antra, the bony ridges in the wall are the guides and the degree of their obliteration marks the amount of pathological process present. A mucous material casts very little shadow, however, and it is sometimes necessary to puncture the antrum in order to make a diagnosis between granulations and fluid. We must consider the relation of the floor of the antrum to the floor of the nose to determine the method of operation. If the floor of the antrum dips well below the floor of the nose it is usually drained through canine fossa.

The sphenoids are rayed in three positions; the antero-posterior to give an idea of the transverse size and shape; the lateral, to determine the longitudinal size and shape, and the relation to other sinuses and sella; the vertical position is used also to show the size and shape and relation of the ethmoid and sphenoidal fissure. In this position can be determined the presence or absence of a large posterior ethmoidal cell or perisphenoidal cell which sometimes lies adjacent to the sphenoid and may simulate disease in this sinus. For instance, the lateral plate will show a cloudy appearance of the sphenoid where a view of the vertical plates will prove this shadow to be a large opaque ethmoid lying adjacent to the sphenoid with the latter clear. This position also helps to determine on which side to operate for a pituitary tumor by the nasal route, for as a rule these sinuses are not symmetrical. The shape of the septum can also be determined.

Walters and Waldron⁷ have recorded a series of plates with reference to the diagnosis of polypi in the maxillary antrum, by the x-ray, being attracted by the frequency of small round shadows in this sinus with well defined outlines, and again the history, symptoms, clinical diagnosis, surgical pathology, and naso-pharyngeal conditions must be taken into consideration. They found in a number of cases that a well defined shadow was present with no symptoms which proved to be a

mucocoele containing a clear straw colored fluid. They claim that a differential diagnosis between polyps and mucocoele can not be made definitely although the polyp is more liable to have associated inflammation of the mucous lining of the antrum, which would produce a certain amount of clouding of the remaining portion.

According to Allen⁸ an antrum that shows the markings of the bony outline clearly is probably negative; one that is diffusely clouded of equal density probably contains pus; while one that is clouded for some distance from its wall, all outlines obscured, but with a rarified area in the center, probably contains an edematous, hypertrophied mucous membrane.

It is an interesting fact that roentgenograms of sinuses after all clinical signs have cleared up, after operation, sometimes still show a shadow over the sinus and is explained by MacFarlan⁹ as the result of thickened mucous membrane.

At times an uneven, mottled shadow, suggestive of a polypoid condition is seen, and if a lack of uniformity of the overlying bone, as in the frontal sinus, is ruled out, it may be so diagnosed¹⁰.

The x-ray is important in the diagnosis of tumors of the maxilla. According to Pierson¹¹ one of the earliest signs of malignancy in the antrum is an even clouding in the plate with a slight break in the outline of the wall. The plate should be carefully examined for signs of teeth in the growth, such as are found in dentigerous cysts, and if present, the alveolar process should be examined for loss of one or more of these organs. It should also be remembered that these cysts cause bone absorption and not bone destruction. Osteomata present a characteristic appearance of a solid growth entirely of bone, while odontomata show well defined walls enclosing one or more teeth. A giant cell sarcoma presents the usual trabeculated appearance. A malignant growth is differentiated in the plate from the diffused clouding of an empyema or a thickened mucosa by the fact that the bone itself is attacked. If seen very early and there is no bone involvement, but we still suspect malignancy, the diagnosis must be made with a microscope. In children the sinus may be quite small and definition less distinct, but sinus conditions in children are met with frequently and a good maxillary picture is necessary for proper interpretation.

CONCLUSIONS

1. The roentgen ray is a valuable aid in the diagnosis of accessory nasal sinus conditions.
2. Anatomical details of practical surgical and therapeutic importance are shown.

3. The history, symptoms and clinical findings should be taken into consideration in interpreting the plate.

4. With properly taken plates, and ruling out previous operative interference, blurring of the margin, or entire extent, of the larger sinuses is interpreted as a pathological condition in the sinuses.

5. The obliterations of the septa in the small sinuses as the ethmoids, with correctly taken plates and no previous operative interference, indicates pathology present.

6. The roentgenogram of the sphenoidal sinus as to the condition of the lining of the sinuses is still unsatisfactory.

7. In certain conditions the diagnosis of the pathology present may be made by the x-ray alone.

8. Pathology is very rarely found in sinuses that appear absolutely normal in the roentgenogram, although it is possible in early acute cases to have pus present with practically no shadow shown in the plate; and all clinical means of examination should be used.¹²

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SEQUELAE OF INFECTIOUS DISEASES OF CHILDHOOD*

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The children of today are the future citizens of the commonwealth. The social conditions surrounding them should always be a matter of concern to the state and the prevention of whatever retards the development of the men and women of the future is an important economic problem.

In Iowa, we have no very large cities with the attendant bad housing and social conditions of the congested and overcrowded districts of the large centers, but we have constantly to contend with the infectious and communicable diseases of children, which not only take their toll during the acute stages, but leave defects and crippled earn-

ing power which handicap the individual throughout life, and in no small number leave them, instead of useful, productive individuals, a burden upon the state for a part or all of their future care.

The economist must refer this problem to the medical profession, to the pediatricist, and especially to the general practitioner, who in the average community, ushers the baby into the world and has the care of the mother and also of the child as it grows and develops into manhood or womanhood.

So, as this is our problem, let us not carelessly refer the child to the care of Providence and the advice of the grandmother but endeavor to not only supervise during but also following illness, and besides to advise until maturity is reached.

Nephritis is one of the most important and also one of the most common results of infectious origin, and in children always an acute process, and as far as they are concerned, microorganisms or their toxins, may be said to play the main etiologic roll.

Acute nephritis in children has been in the past considered to be more often the result of scarlet fever than of any other foregoing disease but some observers of late are claiming that tonsillitis is by far the most important cause. A recent report from the Children's Hospital in Boston makes this claim: It may also follow diphtheria, measles, influenza, pneumonia, and meningitis.

There are two usual types, acute hemorrhagic nephritis, in which the chief characteristics are a bloody urine with a few casts and with few subjective symptoms, and acute exudative nephritis, characterized by headache, convulsions, scanty urine and edema, the latter class causing more renal impairment than the former type. Usually the hemorrhagic form clears up leaving a perfectly good kidney, but a chronic nephritis may follow. In the exudative type there are many granular casts and the child is likely to be very ill and a high blood-pressure may be the forerunner of convulsions and uremia. In the care of the infectious processes which precede the nephritis, we should exercise great watchfulness in observing the kidney function, with frequent chemical and microscopical examinations of the urine. As the kidneys chief function is to excrete the products of protein metabolism and salts, we may spare the kidney by giving more fats and carbohydrates and restricting the proteids and sodium chloride. Much harm follows exposure, the patient being allowed out of bed too soon, or after being up a few days in going out of doors and

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becoming chilled. This is especially true following measles and scarlet fever. Our experience with influenza has taught us the importance of keeping patients confined to bed for a sufficient length of time to allow the system to regain some of the resistance lost during the febrile attack whatever it may have been.

Endocarditis—Next to the kidneys, impairment of the heart following infections, is most often found. Toxins producing endocarditis and an accompanying myocardial weakening, are a frequent end product of tonsillitis, scarlet fever and rheumatic fever. An observer in the *Presse Medicale*, Paris, says that infectious endocarditis is responsible for the fatal outcome with valvular defects more often than any other heart lesion. Many cases of endocarditis may continue for a time with no other symptom than fever, with no signs pointing to the heart. The febrile process may continue for months, often accompanied by chills and malaise, but its essential characteristic is the extreme tenacity. Debre, in the above journal describes a slow malignant form of endocarditis, saying that the streptococcus can usually be found to be the causative factor but the pneumococcus and influenza bacillus may also be responsible. This type of endocarditis is most frequent in adolescents and there is usually a history of acute articular rheumatism with a recent infectious sore throat. The skin manifestations are important, purpura is frequent, or the usual petechial spots. Periods of apyrexia may intervene. Insufficiency of the mitral valve is the most frequent lesion. But few of the mildest cases of acute rheumatic fever in children are left with unimpaired heart valves, and it is a striking fact and one which emphasizes the seriousness of endocardial complications that the cardiac lesion may be the predominant symptom and it is only by very carefully securing a complete history, that the physician can trace the rheumatic connection. Often the condition of the heart is the only witness of the past articular trouble.

Rheumatic nodules are likely to be overlooked and a careful examination will reveal their presence in many cases. Being pathognomonic of rheumatism with carditis, they are of much diagnostic value. They are always absent in cases of rheumatism uncomplicated by endocarditis or pericarditis, and are not often found in mild cases with cardiac complications or chorea, but are very abundant in chronic recurrent and active endocarditis. A new crop usually indicates that a new and extensive cardiac invasion has occurred.

Chorea—Holt finds that 56 per cent of choreic children give evidence of rheumatism and considers a group of cases which may be classed as rheumatic chorea. As to chorea being a sequelæ of rheumatism, it is largely a question of the kind of rheumatism considered by different observers. If acute rheumatic fever, the relative percentage may be small, if subacute cases and those with acute endocarditis without joint symptoms, then the proportion is very much increased. A cardiac murmur persisting after an attack of chorea should be considered of rheumatic origin even if no articular symptoms were present. There can be no question but that the two conditions are closely allied and it may be that future discoveries in the laboratory may find the same organism present in both.

Case Report—Male, aged twelve years, following an attack of measles, developed acute articular rheumatism. When called the boy had been ill for a week with treatment with home remedies, and was found with a marked case of rheumatic fever, high temperature, sweats, joint involvement and endocarditis so bad that the child was propped up in bed to get his breath. Under salicylates and alkalies, he improved, and after the case was dismissed, he was soon allowed to be up and out of the house, in spite of injunctions to the contrary and had a relapse with the development of chorea. After a protracted course, during which time, he was alternately better and worse, the boy apparently recovered, but with a permanent mitral insufficiency. The second year following, he did a man's work on the farm, resulting in broken compensation, with edema and a steady decline, death occurring four years after the initial attack of rheumatism. With the proper cooperation of his parents, this boy might have avoided most of his complications and correct medical supervision might have allowed him to have grown to manhood with a fair expectancy and a comfortable existence in spite of his mitral lesion.

Acute Otitis and Mastoiditis are secondary diseases with the infection in the nose or throat gaining access through the Eustachian tube. In case of acute otitis media occurring in infants, accompanied by fever, with a bulging drum, early paracentesis will promptly relieve the symptoms and avoid later mastoid complications. At a recent meeting of the American Pediatric Society, many of our best known Eastern pediatricists were of the opinion that there were very many less mastoid operations done in the children's hospitals than formerly, Holt stating that in the Babies' Hospital in New York City where they have twenty-five to thirty cases of otitis all the time, there had been but one mastoid operation in three years. Other observers reported like conditions.

The problem of the prevention of colds and the consequent blowing of the nose is important as often a simple mentholated oil dropped in the nostril every few hours will abort or relieve a cold in a short time. Children with adenoids should have them removed for they cause a constant discharge from the nose always increased by an acute coryza. Parents should be instructed to not allow children to blow the nose, or if they do blow it, to blow one side at a time always leaving one side clear.

Acute Poliomyelitis and Meningitis leave their sequelæ more often persisting through life than any of the previously mentioned complications, the former leaving the individual crippled in some manner if life is spared, and in many cases, fate would have been more kind to have provided a fatal sequence than to have left the child with the defects so often seen. Early diagnosis is extremely important both for prophylactic and therapeutic measures.

Rosenow in a recent article says of poliomyelitis "This disease has a quite characteristic syndrome which should lead to its tentative diagnosis and to the immediate making of a spinal puncture for conclusive diagnostic tests. A patient who has symptoms which suggest involvement of the central nervous system and shows an increased amount of spinal fluid, an increased number of cells with mononuclears predominating and a positive globulin test, should be given the serum at once." The results of the Rosenow serum in preventing the attendant paralysis is obtained only when the diagnosis is made in the early stages and the serum used at once.

A series of three cases of fatal cerebro-spinal meningitis recently in which acute meningococcic vegetations on the aortic and mitral valves were found at autopsy, emphasize the importance of the septicemic factor in this infection. The early occurrence of the petechial spots in all three cases may be a useful indication that in similar cases a septicemia has been established and that it points to a cardiac involvement.

Conclusion—In consideration of this question we should bear in mind the estimate of the bureau of vital statistics, that every year in this country 300,000 children under five years of age, die, and that all agree that one-half of these deaths are preventable. Various childrens' welfare organizations are endeavoring to reduce this mortality by maintaining the standard of homes, by proper child labor laws, compulsory school attendance, to give the proper care to the dependent, the neglected, the delinquent, and the subnor-

mal, and especially the protection of maternity and infancy.

Our duty then, as practicing physicians, is to endeavor to help reduce this mortality by more efficient medical care of the acute diseases which we attend, by perfecting ourselves in the newer methods of diagnosis and the use of late discoveries in treatment, by insisting upon proper prophylactic measures not only to prevent the spread of infectious disease, but prophylaxis applied to the patient under our care, endeavoring to lessen the complications which so often are the final result of the mild case of communicable disease. Obstruction from adenoid growths predispose to otitis media and sinus inflammation. Focal infection from enlarged and pus containing tonsils is without doubt one of the greatest etiological factors in many infectious diseases of childhood—acute arthritis, chorea, nephritis, and endocarditis, all in many cases having their origin in hidden foci of infection. The earlier in life obstructive, diseased tonsils are completely removed, the less the liability of the acute processes in childhood and the greater freedom of adults from the multitude of woes in after years, such as acute and chronic arthritis and neuritis of all kinds from the mild shifting neuralgic type to the severe brachial and sciatic forms. Early attention to the teeth will avoid in after years the results so often seen from root abscesses and gums forming pathogenic incubators.

A recent report from Bellevue Hospital on the prevalence of rheumatic fever during the past two decades shows a distinct diminution in the number of cases admitted in patients from twenty to thirty years of age and Lambert's conclusion was that prophylaxis in the way of improved dental hygiene and also the increase in tonsillectomies on children and young adults was aiding in the prevention of arthritis.

More watchful after care following tonsillitis and mild cases of acute arthritis by strictly interdicting an early return to school or other work especially if attended with exposure, will lessen the endocardial and nephritic sequelæ which often develop. Should the latter conditions appear they should be treated by a long term in bed, by a slow return to the former amount of exercise and if possible by spending the next winter in a warm, dry climate. Finally, strict quarantine of communicable diseases is the most important prophylactic factor which we may employ.

Discussion

Dr. Vernon L. Treynor, Council Bluffs—There is one point in the diagnosis of early endocardial condi-

tions following septic diseases which I think is worthy of note, namely: That not infrequently, even before the vegetative process on the valve has materially changed it, we can make a diagnosis because of a musical murmur heard over the mitral area, in the mid-axillary line and in the back. That is a diagnostic sign which is fairly constant and it can be elicited early. Given a child with a history of septic tonsillitis a few days or weeks previously, with the development of a murmur of this character; if this child is put to bed and given absolute rest and is afforded all of the benefits of protection, quite frequently the inflammatory process will be arrested before permanent damage is done to the valvular structures.

Dr. Frank M. Fuller, Keokuk—We are indebted to the essayist for presenting this subject here, because the tendency of a good many medical men is to say,—I do not know anything about children so I let them alone. The truth is we do not let them alone, we cannot let them alone. If we let them alone when they are little we get them when they are big, and they come to us at a time when we can do very little for them simply because some one has let them alone. If we had come over on a ship that dropped the pilot at the entrance to the harbor and let us drift to the dock we would have been in an uncertain position, but too often we do that in the infectious diseases of childhood. To use a phrase that comes to my mind, we let them drift away from the "Doc" without the pilot. I believe that the obligation upon each one who is dealing with an infectious disease in a child is not only to deal with it until the fever has ceased, until the disease has run its course, but to continue that child under observation until we know that the complications are gone. For example, take influenza, which the Doctor mentioned in his paper: You cannot tell whether the child with influenza has a nephritis until you examine the urine, and yet how many of us make examination of the urine in cases of children? Neglect to do so is not an infrequent thing. I saw the idol of a family swept out within the week because of nephritis following influenza. These cases are not uncommon. At the recent meeting of the A. M. A. one of our own members in attendance there heard with a breaking heart a man of prominence in pediatrics refer to the horrible certainty of death in these cases of nephritis following influenza. Another thing: Ask Dr. Scarborough, ask any of the men prominent in the work of tuberculosis, how many children come into the hospital with tuberculosis giving a history of measles? How many are willing to let the complications of measles drop away from them because the child is supposed to cough afterwards? And yet we know the danger, in that almost every case of tuberculosis has its inception in the very earliest periods of life. We know that measles affects the mucous membrane absolutely, and yet too often the doctor allows these cases to drift along after recovery from the measles, without any

thought of the stirring up of infection in the mediastinal glands.

Dr. Frederick H. Lamb, Davenport—I would like to speak about the occurrence of meningococcic meningitis coincidentally with or as a sequel of chronic otitis media. This year I have seen two instances of acute cerebrospinal fever as the sequel of, or at least coincident with, chronic otitis media. In one instance a long search was required to find the meningococcus in the spinal fluid. One of the internes at Mercy Hospital who was helping me had given up the search, but having had a good deal of experience with meningitis in the army I told him to look longer, and eventually, after about a half hour's search, we were rewarded by finding a Gram-negative meningococcus lying in a leukocyte. The patient had a meningococcus meningitis, and after being given several injections of anti-meningococcic serum both intravenously and intraspinally, made an almost uneventful recovery. The second case terminated less fortunately, due I believe, to the fact that the initial treatment for meningococcic meningitis was not carried out completely enough. In this instance the meningococci in the spinal fluid were rather few, but there were many more of them than in the first case. The patient made a good recovery following the introduction of anti-meningococcic serum in the blood and spinal fluid. There was a focus of infection in this case in the ear. We recovered in the exudate from the ear a Gram-negative diplococcus which, when grown on horse serum agar, gave the typical refractile, soft colony of the meningococcus. In this case I believe the focus of infection had not been eliminated, and the patient developed a second attack of cerebrospinal fever from which he died, in spite of treatment.

Dr. Frederick G. Murray, Cedar Rapids—I would like to add just one word in regard to the frequency of cystitis and pyelocystitis following influenza in infants and children. I believe this complication is frequently overlooked by the physician when he makes a careless examination of the urine. A careful microscopic examination of the urine in cases of influenza in infants and children who do not readily recover from influenza will often help to clear up the diagnosis and hasten convalescence. We sometimes look too long for sequelae in the lungs and other organs and neglect to make careful microscopical examination of the urine. We should secure the cooperation of the laboratory in clearing up the diagnosis and getting these patients well. Very often the patient is ill for a long while and the source of the illness is not discovered, when as a matter of fact the condition is due to inflammation of the ureters and bladder.

Dr. E. T. Edgerly, Ottumwa—I wish to recall a case that I reported to this Society about ten years ago, simply as a warning that the rheumatic pains which follow scarlatina may not always be disregarded. A girl of seven or eight developed a severe case of scarlatina which was followed by a painful

hip. At first this was supposed to be a scarlatinal rheumatism, but it did not clear up, and eventually resulted in destructive osteitis of the head of the femur which had to be removed with resulting shortening and deformity. This case was in the hands of very competent consultants, Dr. Weaver and Dr. Bevan of Chicago, and all cultural tests showed streptococci.

Dr. C. G. Field, Fort Dodge—Dr. Gaumer spoke of the administration of Rosenow's serum as though it was specific for poliomyelitis. I just want to call attention to the fact that this serum is simply anti-streptococcic, built on the theory that the streptococcus found by Rosenow is the cause of the disease. This streptococcus has been found in autopsies following most any disease by a great many of the best bacteriologists of the country. None of the men who are handling a great deal of poliomyelitis have been able to obtain the results obtained by Rosenow. Abrams and others who see many cases use only convalescent serum. I do not believe, therefore, that the Rosenow serum is specific for poliomyelitis.

Dr. Earl L. Vernon, Tama—I wish to cite the case of a boy aged five whose tonsils were only partially removed although the operation was done by a supposedly good specialist. Seven years later, on Thanksgiving day, this boy was playing, took cold and developed an acute nephritis, subsequently developing general edema with reduced vision in the right eye. I was called to see him and in making examination I found the remaining stump of the left tonsil, which looked very innocent at the time. The history of the case was that he had had a mild tonsillitis following this cold contracted last Thanksgiving day. There was nothing upon which we could place the blame for the infection with the exception possibly of this small stump of left tonsil. The infection was very pronounced, producing general edema with reduced vision of the right eye. We could hardly submit the boy to another tonsillar operation because of the fact that the family was very much opposed to such procedure, although the family physician was in favor of it. The medical treatment was rest in bed between woolen blankets, liquid and light diet, and a small amount of medicine which, after about three months, had done practically no good. The stump of the left tonsil was then removed, with speedy improvement of the edematous condition of the feet and hands and improvement in the vision of the right eye. In relating this case the point I had most in mind was this: That partial removal of the tonsils will not overcome these conditions and may subsequently leave the doctors in the dark possibly to a greater degree than would have been the case if no attempt had been made to remove them. An innocent tonsil does not tell one anything. When at the Mayo Clinic I noticed that the surgeons there, in considering the advisability of tonsillectomy, depended more upon the history of the case than upon the appearance of the tonsils. No

matter how innocent the tonsils might look at the time of taking the history, whether the patient had had a tonsillitis several times a year or not, if there was a history of rheumatic or other troubles which bad tonsils may cause, the specialists advised their removal. Before seeing the case cited I could not have believed that such a very small particle of tonsillar substance could produce such a profound result in any case.

Dr. Fred Moore, Des Moines—The infections which we saw during the past season (grippe, pneumonia, scarlet fever, measles, etc.), have been very frequently complicated by otitis media. The impossibility of limiting infection and preventing its extension into the ears is a reflection upon our control of these infections. Otitis occurs early and should be watched for. The ears should be examined each time the child is seen. In my opinion the indications for the opening of the ear-drum should be the swelling of the drum. Temperature is not a safe guide. I wish to emphasize the importance of having these ears opened early. If they are opened before any accumulation of pus has taken place no harm has been done. The drum will heal and function will not be impaired. It may happen that we shall have to open again. In that case it is better to have opened early and have to repeat the performance than to let it go for several days. In taking histories I have too often been told that during a given illness the ear was infected, but "the doctor said that in two or three days it would break and be all right." For such an adviser I would prescribe an acute attack of otitis media and the conditions that follow. If careful attention is given to the ears early the function will be preserved, and the incidence of chronic otitis media and mastoid infection will be cut down.

Dr. David J. Glomset, Des Moines—I would like to emphasize what Dr. Gaumer has said concerning the value of functional kidney tests, not only in the diagnosis and prognosis, but also in the after treatment of nephritis following these infectious diseases. It is possible by making blood-urea and blood-creatinin tests, etc., to determine with a fair degree of accuracy the extent of the lesion. This is important in itself, but it is more important, in these cases, to be doing functional tests during convalescence, because it frequently happens that doctors withhold the essential proteids from children when such a measure is not needed. By making the tests mentioned it can be determined just exactly how much proteid the particular child can stand, and if the child's kidneys can eliminate the necessary amount of protein waste products it is not correct to restrict the protein diet to a level not consistent with proper growth.

Dr. Gaumer—In regard to Dr. Field's remarks, I did not mean to convey the impression that the Rosenow serum is specific in the prevention of paralysis following poliomyelitis, as there are but few specifics in medicine; but rather I made a plea

for an early diagnosis in order that we may as early as possible institute whatever therapeutic measures we may believe are indicated. In my opinion the point to be emphasized is the prevention of the complications which so often follow the communicable diseases of children. If we can materially reduce the number of complications we will save an appreciable number of lives each year and thus lessen the percentage of deaths among children which is now altogether too high. The child who has passed his third milestone increases his expectancy each year until maturity is reached. Permanent defects in hearing, as Dr. Moore has said, may be prevented by proper care in our cases of otitis media and in early paracentesis where indicated. Rheumatic fever, endocarditis, chorea, and other sequelæ may be prevented by removing adenoids when present and diseased tonsils if such exist. A more careful diagnosis of the diseases we are called upon to treat should be our aim.

THE ANESTHETIST AND HIS "POWER OF ATTORNEY"*

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Member American Association of Anesthetists; Member Interstate Association of Anesthetists

The anesthetist, the world over, recognizes that the doctor is the hardest patient he is asked to put to sleep. A doctor's fear of the ordeal is oftentimes beyond all reason when one realizes that he knows the chances of an accident in figures better than anyone else. He will travel farther and make more fuss to get into the hands of an anesthetist in whom he has confidence than he will to get to his favorite surgeon.

In wondering why this is true I have come to the conclusion that it is not so much because he fears the lack of skill in administering the agent used as it is hesitancy to surrender his "power of attorney," (I cannot find another word which expresses my meaning) to one in whom he has not absolute confidence that the judgment used for him, in his absence while he is asleep, will be at least as faithfully made as he would make it were he conducting his own affairs. What I mean is that a doctor looks for an anesthetist who will endeavor, as nearly as may be, to take his place mentally while he is unconscious.

A doctor should be an excellent criterion by which to be governed in such a matter, so that I wish then, in this paper, to make a plea that the anesthetist appreciate more fully the responsibility in assuming "power of attorney" for the patient while he is unconscious. During most of the

great events of our lives, times of storm and stress, we are able to be, or at least try to be, at our very highest pitch of mental alertness. The one great exception to this rule is during a major surgical operation; and what greater day of physical storm and stress is an individual required to experience than the twenty-four hours covering the time, previous to, during and after a major operation. And yet the stress is so great in this case that one must be unconscious to bear it at all. Is not the reason for the doctor's greater timidity simply that he realizes more clearly than the layman what an extensive physical ordeal he is facing and is extremely reluctant to relinquish his mental supervision during that time?

Modern surgery has become so complicated and exacting that the surgeon can no longer be asked to look after the condition and welfare of the patient before and during operation. The anesthetist must do it. Ofttimes the consulting internist is of the greatest assistance but he is not always available and his relation to the patient during the operation, when he is present, does not permit him as good an opportunity to observe data available as does that of the anesthetist.

Therefore, I maintain, the anesthetist must assume the power of judgment in the patient's behalf, which the patient surrenders with the advent of unconsciousness. In other words the anesthetist must take up, along with the duty of properly administering the drug used, the administration of the patient's usual mental activities in so far as such action is necessary for the best welfare of the patient. A lawyer calls the power to act in his client's stead "power of attorney" and, as before stated, I know of no other term which aptly expresses the meaning I want for this relation of anesthetist to patient.

In order properly to administer full duty to the patient the anesthetist need but vividly imagine himself in the patient's exact position sixty times each minute during the period of the ordeal. For instance, if at the pre-anesthetic visit the night before the operation he finds the patient frightened beyond reason at the prospect of the ordeal tomorrow at least an attempt should be made to get some rest for that patient during the night and see that a fitting pre-operative hypodermic be administered sufficiently long before the operation in the morning. If a pulse pressure is found exceeding in millimeters of mercury the whole diastolic pressure or a pulse pressure of less than 20 millimeters the surgeon can doubtlessly be persuaded to postpone the operation until the circulatory system can pick up to a safe point.

*Read before the Seventh District Medical Society, Sioux Falls, South Dakota, December 3, 1918.

Last summer during the hot weather I was asked to anesthetize a gentleman of seventy-six years for prostatectomy. At the pre-operative visit his systolic blood-pressure was seventy with diastolic about ten millimeters less. A delay of several days of rest and abundant liquids gave us a diastolic pressure of 70 millimeters and systolic 110, when nitrous-oxid-oxygen was administered for one-half hour with little change in pressures. I think the result might have been different had we anesthetized him when first asked.

These pre-operative observations are made, to be sure, while the patient is conscious, but are made with "eyes" which the patient has not and therefore our judgment should rule instead of the patient's, under our "power of attorney." Next morning it may be advisable that the patient ride to the operating room instead of walk. It uses energy to walk through a long corridor and up-stairs to an operating room, and at such a time every calorie of energy saved may be worth while when we are playing with a narrow margin.

On the operating table the patient is scared and likely to think that remarks are not in order. If the table is hard, poorly padded and cold the patient will not mention it. The anesthetist should see that the table is warm and comfortable.

Ofttimes the surgeon and nurses get over warm in a room at 80 degrees Fahrenheit and believe it 110 degrees, and order a window up. Discomfort for surgeon and nurses is less harmful to a patient than a draught on an exposed perspiring body.

Who can best judge whether further operative procedure is wise on a person driven physically into the "last ditch" by rough abdominal surgery, retractors and extensive gauze packs? And who is the better judge as to when enough of such procedure has been dealt, and that the patient had better be hurried to bed; the surgeon who can see a few coils of intestines and some iodine painted skin of the abdominal wall, perhaps, or the anesthetist with finger on pulse and charted readings of systolic and diastolic pressure and respiratory rate, color, sweating, et cetera? Often is it wise to leave that appendectomy after a hysterectomy and do it a few weeks later and if indications are that the wise procedure is to wait and get out, the anesthetist must use "power of attorney" and call quits.

Three weeks ago I was asked to anesthetize a woman for a trachelorrhaphy and cystocele operation. She was a strong, well looking woman of forty-five. An exploratory laparotomy first revealed a large gall-bladder packed full of stones. This bladder was removed without opening, the procedure requiring considerable rough retraction

and pulling on deep structures. Though at no time was her pulse over a hundred the pulse pressure came within ten millimeters of the value of the diastolic indicating the wisdom of a secondary operation for the vaginal work. Later this was done with a beautiful recovery from both anesthetics without shock either time. Had all the work been done at once I am satisfied that a very stormy three days would have followed the procedure with even a possible unhappy result.

On the other hand a record sheet lies before me of the following case: "A man aged fifty-one, weight one hundred pounds. Abdomen opened for diagnosis. Jackson's membrane found and relieved, a thick gall-bladder with stones, and a hard ulcer of the pylorus present. When a gastro-enterostomy was finished, at the end of forty-five minutes, the surgeon inquired as to the condition of the patient. Pulse-pressure and pulse-rate were little changed and further operation was advised. After resection of the pylorus pulse rate was under eighty and systolic 158, diastolic 90. Recommended removal of gall-bladder. Total time, two hours. Without a careful chart of the five minute readings of pressures with other data available, operation would doubtless have been discontinued without removing the pathological tissue. The recovery justified in every way the extended operation."

When the operation is finished and the patient is started for his room, unconscious, reflexes not returned, shall we cover him up with quantities of blankets on a warm cart that has had hot water bags on it or, just because he is unconscious and won't complain, shall we half cover him with feet and shoulders sticking out while passing through cold, draughty halls? And who but the anesthetist with "power of attorney" will see that such care is taken? Unless he goes to the room and watches, it will not be done in many hospitals, I am sorry to say.

And now if the reflexes are still absent and vomiting possible, the anesthetist cannot still "keep himself in the other fellow's shoes" and go away and run the risk of inhaled vomitus unless the patient is in a safe position and a nurse reliable and properly instructed is available to whom to hand over the "power of attorney."

Speaking of a safe position for the patient leads me to say a word in regard to position during and after tonsillectomy. I consider anesthesia for tonsillectomy one of the most hazardous risks we are asked to take. I will tolerate only two positions during operation. One the lateral with mouth turned down, the other sitting upright with body and head inclined forward. While returning

to bed and after, until reflexes are under control, the prone position with one shoulder propped on a pillow and face to the side is routine. Toleration of other positions than these, I believe courts an accident sooner or later.

Is it not reasonable to believe that many, if not all cases of "anesthetic pneumonia" could be avoided if the anesthetist were thorough in the preanesthetic examination and used the "power of attorney" boldly in every case throughout the period of unconsciousness? Beginning pneumonias operated for abdominal lesions are responsible for many cases of "post anesthetic pneumonia," and are not others traceable to exposure, dampness, and careless handling during and after operation? If the average healthy person stood for the bodily exposure and sudden changes of temperature imposed upon many a desperate risk, a good chance of acute respiratory infection as a sequel would be had.

Is not many a case of severe post operative shock brought on by extending operative procedure to fields which could be invaded with better judgment at a later time?

There are cases where extended procedure is wiser than a secondary operation but without the careful judgment of one who has the data in hand it is hard to pick the right case for the prolonged procedure. The anesthetist should have the data and should make the judgment.

Is not the dorsal position after a tonsillectomy before reflexes are regained, with inhalation of secretions, blood and vomitus a possible source of danger? Why should we take the risk? Why not always use the prone position and let gravity keep the airways free?

Let us close then with a plea that when you administer an anesthetic you do so with a realization of the importance of the undertaking; appreciate your "power of attorney" and do not be afraid to use it. That is what you are employed for by the surgeon and what you are paid for by the patient.

525 Frances Building

SURGEON GENERAL TO ISSUE MEDICAL PUBLICATION

A semi-monthly medico-military review, for officers of the medical department, will be issued by the surgeon general of the army. The review will contain medico-military news, information bearing on the problem of disease control, extracts of current medical literature, and notes on investigations being carried on in the army.—(New York Medical Journal.)

BACK PAINS*

PAUL E. GARDNER, M.D., New Hampton

Pain in the back is a very common and ordinary symptom. Most all people sometime in their life have had aching or lancinating pains in their lumbar region, *i. e.*, if the origin of pain is not in the back the pain was referred to that locality.

But when you are dealing with pain in any part of the body I think it is well to make a pretty thorough study of the individual, especially if you cannot find any objective disorders. As pleasures and pain seem to be the two fundamental qualities of the individual life.

But, the concrete pains of everyday experience are, as even a superficial introspection shows, partly matters of sensation.

It was formerly supposed that pain was a common sensation, excitable by excessive stimulation of any and every sensory nerve. This theory still lingers in the belief, that there are special temperature pains producible and only producible by excessive thermal stimulation of the cutaneous surface. But it found its chief support in the great variety of organic pains. There seems to be no internal organ however insensitive during healthy function, that cannot mediate pain when the function is deranged. And, the pains vary in character, according to their place or mode of origin.

They may be throbbing, as in toothache; dull and gnawing, as in extreme hunger, dull and throbbing, as in lesions of the rectum, acute and shooting as in neuralgia, acute and intermittent, as in colic, acute and constant, as in peritonitis, dull and nauseating as in certain diseases of the ovaries and testicles.

In fact we hear of a great variety of pains such as: pressing, boring, cutting, constricting, piercing, burning or smarting, as in certain skin wounds, dragging, as in certain forms of rheumatism.

It is very natural—indeed, it seems at first sight necessary to explain these differences as differences of quality; to assume the existence of many different kinds of pain. If we look at the facts more closely, however, we see that certain of the descriptive adjectives point unmistakably to simple differences of time and of intensity. A throbbing pain is an interrupted pain, a shooting pain is one that shows, besides intermittence, a quick rise of intensity as it runs its

*Read at July meeting of Austin Flint-Cedar Valley Society by Dr. Paul Gardner.

course, a piercing pain is intensive, a dull pain weaker.

Moreover, all the concrete pains are intermixed with the specific sensations peculiar to the organs which mediate them: a sickening pain contains the sensation of nausea, a dragging pain contains a mass of muscular sensations.

These concomitant sensations, again, are variously localized, an acute pain seems to occupy a small area, a dull pain is massive, widespread. When we take these facts into account, and remember the specific differences to which variations of time and intensity may give rise to conscious complexes other than pains, we shall hardly resist the conclusion that the pain quality is one and the same throughout. The many pains differ temporarily, intensively and in their associations, not qualitatively.

Lumbo-sacral pains may have their origin either in a comparatively small and localized area, or they may proceed from a larger involved area.

In the former case the cause is apt to be a traumatism either a slow acting strain or a quick acting rupture. In the latter the cause may be rheumatoid or gouty in character, and due most often, probably, to infection. While anatomy *per se*, is an exact science, our knowledge of the anatomical lesions causing backache is so limited that any attempted explanations of cause and effect must be largely theoretical even though we do our best to make them rational.

In attacking the problem, let us consider first the structures themselves and then their possible involvements in the traumatic process. The movable parts are the ones involved and they are the lumbar spine, the lumbo-sacral junctions and the sacro-iliac articulations. Of the ultimate structure of these parts, the bones may be dismissed from consideration, for fracture is too rare to be considered (with due respect to our osteopath) the same may be said of the muscular structure. We then have two elements left—the nerves and the ligamentous structure. While nerves do not enter cartilage, they do exist in ligaments and fibrous structures; therefore traumatism to these latter does give rise to pain.

When the ligaments are ruptured, as occurs in sprains, pain is felt at the site of the rupture.

This is elicited by movements and there may be local tenderness on pressure.

When a nerve trunk is irritated, there may be some pain at the site of the traumatism, the most marked pain is referred to the course or distribution of the nerve.

The explanation of these referred pains is very difficult and their interpretation is to a great ex-

tent one of judgment and opinion. The actual site of the lesion is inaccessible to direct examination and therefore its location is largely a matter of speculation. In considering this question of pain we will admit that pain due to ruptured ligaments, may be produced by sprains, or a certain amount of displacement either of the vertebral joints, in the lumbar region, at the lumbo-sacral articulation, or at the sacro-iliac joints. While the local pains can be so explained, it is not so easy to account for the referred pains.

There can be no doubt that in most of these cases traumatism, either occurring suddenly as in lifting heavy weights, or making certain movements, or long-continued strains due to certain occupations or the maintaining of an improper posture, is the direct cause of the trouble.

It is reasonable to suppose that nerves, in the vicinity of a joint would be traumatized when that joint exceeds its normal extent of motion. In other words, when the normal movements of these joints are carried to their extreme extent, then all the soft tissues are tense; and when the ligaments rupture, the nerves are stretched and referred pains produced. The amount of force necessary to produce a complete luxation is so great that its occurrence is comparatively rare, but there can be little doubt but that partial luxations or sprains are of frequent occurrence.

Backache and retroversion have been so long and so intimately associated in the minds of the profession and the laity, that it may seem superfluous to question a casual relationship between the two conditions. Nevertheless, the question has often been raised, some asserting that back pain is never caused by uterine deviations; while, others go so far as to claim that no disease of the female internal genital organs may produce backache. One of the reasons given for non-belief in the existence of back pain of uterine origin is the difficulty of explaining the mechanism of the pain. Although this is not a valid argument against the actual occurrence of uterine backache, it must be admitted that no very satisfactory explanation has yet been given.

The pain probably is in the retroverted uterus itself, as may be shown in an attempt to dilate the canal without an anaesthetic. If the pain issues directly from the uterus itself, it is natural that it should be referred by the patient to the sacral region, for the uterus in retroposition lies in close relation to the sacrum.

The pains in the back, due to injury require special consideration, I refer here particularly to the back pains seen in traumatic cases seeking damage for personal injury. A large proportion

of these cases complain of persistent back pain that is severe and increased on motion. There is also present more or less rigidity of the spine, and tenderness on pressure. This is a type of low back pain very difficult to interpret.

If a patient complains of pain, keeps his back rigid or held to one side, it is impossible to prove that the pain does not exist.

Consider this picture. A man is bending forward to pick up some light object from the ground or perchance, he is only picking up his shoe from the floor. In either case he experiences a violent pain in the lower back and has to be helped to bed; because the slightest direct or indirect strain on the injured part brings back the pain of the original accident.

On examination there is little to see in the back or in the roentgen picture. The man points to the seat of the pain over one of the lumbar or pelvic joints, most often, perhaps, over one of the sacro-iliac synchondroses. Local applications do little good until adhesive plaster or some other form of mechanical support is applied. With this in place the man begins to find that he can move in bed or stand with comparative comfort. If, during the next few days the plaster, or appliance, gets loose, there is return of the pain.

The pain and tenderness gradually go away, but the man finds that this spot in his back is more easily hurt by heavy lifting than it was before the accident.

There is I think no better explanation of the mechanism of such a case than that implied in the use of the analogy of sprains of the ankle joint.

It is not difficult to give temporary relief in a case like this, but to tell just when the man can safely work again without support, is sometimes a good deal of a problem, for, as some one has remarked, the only difficulty with explaining these back injuries after the analogy of a sprained ankle, is that sprained ankles, after a while, get well.

But as pain in the back is only a symptom, and these symptoms are told us by the individual who has the pain, we can observe nothing else. A great deal depends on the person that tells the story as to our diagnosis of his condition.

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INSTRUCTIONS RELATIVE TO THE EXAMINATION AND TREATMENT OF WAR RISK INSURANCE PATIENTS

TREASURY DEPARTMENT

Washington, D. C., May 14, 1920.

Department a
Circular 140

To Medical Officers of the United States Public Health Service and Others Concerned:

I. The term "Patients of the Bureau of War Risk Insurance" as used in Public Act 326 of the 65th Congress shall be held to mean, subject to the limitations contained in paragraph II hereof:

(a) Any discharged sick and disabled soldier, sailor, marine, army or navy nurse (male or female), applying for compensation for personal injury suffered or disease contracted in the line of duty and not the result of his own wilful misconduct, and until such time as claim for compensation has been disallowed.

(N. B.—The above authorization is intended to cover emergency cases in which the health of the patient would be seriously injured by delay. Great care should, however, be exercised in the utilization of this authorization, the patient's discharge and other papers being carefully examined to prevent, in so far as possible, persons falling within the limitations of paragraph II hereof from receiving treatment.)

(b) Any person who, after induction by a local draft board, but before being accepted and enrolled for active service became disabled, as the result of disease contracted or injury suffered in the line of duty and not the result of his own wilful misconduct involving moral turpitude or as a result of the aggravation in line of duty and not because of his own wilful misconduct involving moral turpitude of an existing disease or injury.

(3) Any such person in whose favor an award of compensation has been made, or to whom a certificate of injury has been issued by the bureau of war risk insurance.

(d) Any such compensable person who has waived his rights to compensation.

(N. B.—Patients falling in classes a, b, c, and d will be treated only for conditions definitely connected with their military service or for intercurrent conditions having an untoward effect upon the cure or amelioration of conditions definitely connected with their military service.)

a. The first edition of this circular is dated May 1, 1919. It is entirely superseded by this edition.

(e) Discharged members of the military or naval forces of those governments which have been associated in war with the United States since April 6, 1917, subject to such regulations as the director of the bureau of war risk insurance may prescribe.

II. Discharged sick and disabled soldiers, sailors, marines, army or navy nurses (male or female), are rendered ineligible as patients of the bureau of war risk insurance by any of the following:

(a) Discharge prior to April 6, 1917.

(b) Discharge or dismissal from the military or naval forces as enemy alien, conscientious objector, or deserter, or as guilty of mutiny, treason, spying, or any offense involving moral turpitude or wilful and persistent misconduct.

(c) Dismissal or dishonorable, or bad conduct discharge from the service.

(d) Refusal to submit to, or obstruction of physical examination.

III. All persons concerned with the enforcement of the provisions of this circular will provide themselves with copies of war risk insurance act and acts amendatory thereto, public act 326 of the 65th Congress, and all acts of congress relative to the federal board for vocational education. They will thoroughly familiarize themselves with the contents of these laws, to the end that ignorance thereof shall not be held to be sufficient excuse for failure to properly carry out their provisions.

IV. Hereafter—

1. The Bureau of War Risk Insurance shall be responsible for the determination of

(a) The eligibility of persons mentioned in paragraph I hereof to compensation and treatment;

(b) The service origin or aggravation, nature and degree of disability of their injuries or diseases;

(c) Their reference for treatment; and

(d) The payment of all bills incident to the discharge of the above mentioned functions.

2. The U. S. Public Health Service will be responsible for furnishing reasonable medical, surgical, and hospital services and supplies, including prosthetic apparatus to such patients of the Bureau of War Risk Insurance as may be referred to it for the same, and the payment of all bills incident to the discharge of these functions.

The surgeon general of the U. S. Public Health Service is hereby authorized to make such reasonable rules and regulations for the internal ad-

ministration of hospitals and relief stations operated by or under contract with the public health service for the maintenance of order and as will prevent patients from endangering the health or impeding the recovery of themselves or other patients.

In case of discharge from hospital for disciplinary reasons the director of the Bureau of War Risk Insurance or his representatives in the district should be notified in order that other hospitalization may be arranged, should it be necessary.

In case it is believed necessary to take advantage of disciplinary action authorized under the war risk insurance act or its amendments, particularly with respect to payment of compensation, the case should be laid before the director of the Bureau of War Risk Insurance with full report and recommendation.

V. The surgeon general will provide in each district medical and clerical personnel and office space necessary to the discharge of the functions enumerated in paragraph IV.

Hereafter district supervisors and their subordinate personnel shall be held to be the field representatives of the director of the Bureau of War Risk Insurance and the surgeon general of the U. S. Public Health Service.

District supervisors will carry on their operations under the conjoint direction of the chief of the hospital division and the chief medical advisor for the purpose of carrying out the provisions of paragraph IV, sub-paragraphs 1 and 2, under rules and regulations conjointly prepared and approved by the director of the Bureau of War Risk Insurance and the surgeon general of the U. S. Public Health Service.

In each district there will be a district examiner who, with his subordinate personnel, will operate under the direction of the district supervisor for the purpose of carrying out the provisions of paragraph IV, sub-paragraph 1.

In each district there will be a district relief officer who, with his subordinate personnel, will operate under the direction of the district supervisor for the purpose of carrying out the provisions of paragraph IV, sub-paragraph 2.

The director of the Bureau of War Risk Insurance and the surgeon general of the U. S. Public Health Service will take immediate steps looking to the housing of each district supervisor and the field representatives of the Bureau of War Risk Insurance in the same building with a conjoint central information bureau.

D. F. HOUSTON, *Sec'y of the Treasury.*

ARTHRITIS DEFORMANS

KATE HILLS BOCK, Dowagiac, Michigan

The following reflections are by a lady suffering for years from acute multiple arthritis and later from arthritis deformans. The feelings of the patient are well depicted.

Walt Mason turned to poetry his aches and pains rheumatic, and spoke his piece about them in a manner most emphatic, but he camouflaged it so that it would look like prose, hanging sentences together with colons and all those, and leaving out the capitals that should begin each line. Now watch and I will show you an apprentice get in fine. The story I will tell you are some of the performins' of that villainous old rascal Arthriti S. De Formans. Once, many years ago he bore the alias, Rheumatoid, but the doctors have officially declared it null and void: as R. Thritis is much meaner, in fact he would disgrace just decent rheumatism and make it hide its face, so they kicked him out the family and made him get a hump, while he grew folks bones together with many a bump and lump. Worse, there is no way to hinder his mad and wild advance, unless *Eddy's Scientific Key to Scripture* might, perchance. "Bones, simply are the thoughts," she says, "of which they are composed and then another scientific fact still further is disclosed." A baby's bones of mother's thoughts, are but a subdivision; soon baby takes possession of his own and makes decision, regarding, we must so infer, how many he will own: the number he decides on will save him many a moan when R. Thritis gets a hustling to grow them well together, while casting in assorted pains with foul and pleasant weather.

Since Adam's time each fellow has had bones about ten score: some physiologists add eight and some add even more; but no one ever paused to think that babes could know enough to form their bony structure just a thinking bout such stuff: when once their scheme gets started Kipling's idea of a frame, will meet with their approval and help them with the game. "A rag, a bone, and a hank of hair, "will be the proper thing, and oh, what wond'rous surcease of agony, 'twill bring! If I should be consulted I'd advise, leave out the hair, for fear that old R. Thritis would put one over there, by tangling all the roots up in some weird and horid shape, while adding twisting, fiendish pains that we can not escape. Just "A bone" will knock Arthriti S. De Formans galley west! It could not well be altered much to meet his

stern behest. But think! two hundred sixteen will make how many pair! Why, in the spinal column, pray, how many are in there? Then put in the phalanges and a dozen pairs of ribs, and there will be a plenty to employ his Royal Nibs, Arthriti S. De Formans, and give him lots of fun, when he starts his favorite pastime of setting them in one, just as he has been doing countless centuries of years, as a sample of his handwork in the Pyramids appears. I would that mine were among them, all securely packed away there in the Tomb of Pharoah, until the Judgment Day! But I'd never rise to claim such bones, each hideously deformed, nay, boneless, first I'd sneak away when Mr. Gabriel warned and so, too, would friend Mason, or pray that rheumatiz would come once more and snatch him and get right down to biz. He'd try his old nine thousand cures and mix steen thousand more to alleviate the torment and soothe spots so sore. He'd gladly have his "innards" turned completely wrong side out, colon, gall duct and appendix, sacrifice without a doubt: heart, tonsils, liver, kidneys should be x-rayed lest they might be harboring the infection that had caused his horrid plight. His intestines, big and little, yea, his almost unknown spleen, every portion of his system, both, the seen and the unseen, would be re-cut and remodeled to suit the surgeon's whim, while hoping incidentally, to douse Arthritis' glim. Alas! alas! to no avail! He "comes to" with a yell, only to find his enemy waiting to give him Hell! "A rag, a bone and a hank of hair, henceforward, is the dope, and in the minds of infants there lies our only hope: for when once they get possession of their bony thoughts they'll swear, "one bone's enough!" and, quite automatically there will cease arthritic shrieks of pain and, no matter what the weather, there will be no more stiff joints, *forever and forever!*

SCHOLARSHIPS FOR PHYSICIANS

The Endowment Fund Committee of the New York Post-Graduate Medical School and Hospital has announced that the \$100,000 recently contributed by Mrs. Henry R. Rea, in memory of her parents, Mr. and Mrs. Henry Oliver of Pittsburgh, will be used to establish twenty scholarships for the benefit of country physicians who are unable to pay for the courses of post-graduate instruction. In awarding the scholarship prizes the committee will consider the possibilities of public service of each candidate and the recommendations of the state and county medical societies will be considered. The scholarship awards will not be local, but will be distributed over the country.

The Journal of the Iowa State Medical Society

D. S. FAIRCHILD, Editor.....Clinton, Iowa

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No. 12

THE MONTREAL MEETING OF THE AMERICAN COLLEGE OF SURGEONS

The Canadian session of the college may be regarded in every respect as a success. About 2,000 fellows registered. A large number of new fellows were admitted, without being accurate as to figures, there were 640 from the United States, 110 from Canada, and thirty-five from South America, three from China. Among the American Fellows may be included, twenty-six from the Army and twenty-five from the Navy. The arrangements were admirable, there was some confusion on the first day as to hotel accommodations, but in twenty-four hours it was straightened out to the satisfaction of nearly all. For ourselves, arriving the second day, we succeeded in securing satisfactory hotel accommodations at moderate rates.

The registration card method secured satisfactory attendance on the clinics, without crowding, or confusion. The clinics were abundant and represented every branch of surgery. No adverse criticisms were made as to the work or its arrangement and every one was filled with admiration for Canadian Surgery and the efficiency of Montreal hospitals.

The afternoon and evening sessions were well filled in with special papers and discussions, often arranged as a symposium. The surgeons who appeared on the programs were generally present and responded with well prepared papers and discussions, which were well attended. As many

of those in attendance had never before visited Montreal they could not be expected to listen to papers when there was so much outside to be seen in an interesting city. There is generally a cordial feeling that the college of surgeons is doing a great work in standardizing surgery and hospitals and there is also a feeling that the men directing its affairs are the best and most capable, yet there is liable to arise a feeling that the governing board should establish a closer relation, more like the House of Delegates of the A. M. A. so that Fellows might know more how it was done. An hour between 4 and 6 p. m. was set aside for a business session on Thursday, but the program for the afternoon was so large that it was apparent to any one that nothing could be reached beyond the reading of a brief report of the list of officers selected by the general committee. No question could be raised as to the merits of the men selected to direct the affairs of the college but sometime there will be a demand as to how it is done. It will relieve the situation if the board would publish in detail, the method of procedure.

The address by Sir Berkley Moynihan on the first day was regarded as a classic.

The tribute to Dr. John B. Murphy was expressed in the most touching and eloquent language. None other than Sir Berkley could have so reached the hearts of the audience.

An interesting feature of the first day was the presentation of the Mace by the surgeons of Great Britain to the American College of Surgeons as a war memento of the work done in cooperation by American and British surgeons during the war.

The mace is the work of a well-known worker in metal, Mr. Omar Ramsden. A surgeon's mortar dug up in a Salonika trench was the model for the head, is surrounded by maple leaves and American eagles. The badges of the British and American Army Medical Corps and the serpents of Esculapius are prominent, the name of Philip Syng, the father of American surgery (who was at St. George's Hospital before he went across the Atlantic), is introduced, and the roll of subscribers will be engraved in due course. An inscription on the mace reads: "From the consulting surgeons of the British Armies to the American College of Surgeons in memory of mutual work and good fellowship in the Great War."

NEUROSYPHILIS

Dr. Joseph V. Klauder of Philadelphia, in a paper published in the American Journal of Syphilis, considers some questions in relation to

early neurosyphilis. "About the only available data concerning the percentage of syphilitics who in later years develop one or the other clinical types of neurosyphilis are the frequently quoted statistics of Mattauschek and Pilz. These writers studied records of 4,134 cases of army officers, who had been infected during the two decades between 1880-1890, the investigators following their careers to the year 1911. They found that 4.75 per cent had developed general paralysis, 2.5 per cent cerebrospinal syphilis."

Referring to the hypothesis that salvarsan has a provocative influence upon changes in the spinal fluid in cases of primary syphilis, Nonne writes: "Since the introduction of salvarsan therapy for neurosyphilis, paralysis of various cranial nerves are seen more frequently. This higher frequency is in part only apparent since more attention has been given of late to auditory and labyrinthine disorders. On the whole, however, it must be considered that salvarsan does activate old foci which without salvarsan therapy, would perhaps have remained latent. Perhaps we are dealing in some instances with fresh infection of neurosyphilis, in other cases with a Herxheimer reaction."

The views of different authorities on the significance of the Herxheimer reaction are set forth in this paper in which different opinions are expressed, thus leaving the question open for further study.

THE TREATMENT OF LATE SYPHILIS

Dr. H. H. Hazen, in the American Journal of Syphilis, October, 1919 number, states there is no satisfactory evidence that late syphilis is really cured. To cause a refractory Wassermann-positive blood to become negative is a triumph and a step in the right direction, but by no means a proof of cure, neither is freedom from symptoms over a space of several years. When it is observed how difficult it is to cure the most favorable case, it is too much to expect an old chronic to yield.

It is generally assumed that arsphenamine actually works by killing the organism with which it comes in contact, it is hard to believe that the amount of arsenic in the blood serum injected into the spinal canal can be responsible for the great improvement that we frequently see in persons suffering from cerebrospinal lues. But little is known of the time it takes for arsphenamine bearing plasma to reach organisms tucked away

in fibrous tissue nests, may not all of the valuable material be lost before it actually reaches the organism? With such limitations in fundamental knowledge, it is not surprising that syphilologists have different schemes of treatment for late lesions.

It is generally considered unwise to give any one drug for a long space of time, as it will lose its killing power. The old continuous method of administering mercury for year in and year out is considered unwise and to administer arsphenamine at weekly intervals for a long space of time is just as bad. The general tendency is to give short and intensive alternating courses of the two drugs, with certain periods of rest if the treatment must be prolonged. Before considering a case Wassermann-fast, the spinal fluid must be examined, as it is not unusual to find a focus in the nervous system in such instances.

SYPHILITIC AND ARSENICAL JAUNDICE

The question, according to Scott and Pearson, may be divided into two groups: first, jaundice, which occurs in untreated cases of syphilis and which is due to an invasion of the liver by the treponemia and second, cases which occurs subsequent to the treatment of the syphilis by salvarsan or its substitutes and due to the organism, the drug or a combination of both. Osler's statistics and observations at Johns Hopkins indicated that the incidence of the first type is not great.

It appears from the observations and statistics of several writers and from statistics gathered that the incidence in the second group is somewhat greater. Harrison considers the jaundice due to an obstruction of the common duct by an inflammatory swelling of duodenal mucus membrane. The conclusion reached by the author of the paper is that the pathological condition is a diffuse intralobular hepatitis. The degeneration of the liver cells is the principle lesion, there also may be found degeneration of the portal canals, or the small bile ducts, and some replacement with fibrous tissue. The author also expresses the opinion that Harrison's obstructive theory does not hold good.

SALVARSAN FAKES

Washington, October—The inclusion in the program of the all-American conference on the Great Red Plague, which meets in Washington early in December, of a discussion of the use of sundry ar-

senic "substitutes" for arsphenamine (salvarsan) in the treatment of the plague is highly commended by Surgeon General H. S. Cumming, of the Public Health Service.

"Medical officers of the service and others concerned," he said, "were especially cautioned last spring against the use of arsenic preparations not belonging to the arsphenamine group and were directed to use only the arsphenamine produced by licensed firms under the rules and tests prescribed by the U. S. Public Health Service.

"Testing of these arsenic preparations is very necessary because of their poisonous nature. If not properly prepared, they may be deadly no matter how carefully they are used or what is almost as bad, may be entirely worthless and may delude those who use them with illusory promises of a cure that cannot result.

"Some of the unlicensed preparations that have been foisted on the market were frauds pure and simple, containing no arsenic or other curative agent at all; but most of these were soon detected and their manufacturers punished. Many of those that are still being made result from efforts to circumvent the rigid tests required by the Public Health Service for the protection of the public and to market substitutes which are sold with unwarranted claims as to their curative value.

"Salvarsan (606) was devised by Ehrlich in 1910 after 605 unsuccessful experiments in trying to find a preparation of arsenic that would kill the germs in the patient's blood without also killing the patient. It was carefully protected by patents, taken out in Germany and elsewhere, that which enabled enormous prices to be charged for it. During the war inability to import it from Germany, where it was chiefly manufactured, caused the United States to seize the patent rights and to authorize manufacture in this country.

"Later, in an effort to standardize the drug and to prevent the sale of worthless substitutes the name 'arsphenamine' was adopted; and licenses for its manufacture were granted by the treasury department to all persons who complied with certain conditions that were considered essential for safety and health.

"No one who does not comply with these regulations may call his product 'arsphenamine;' but there seems to be no law to prevent the manufacture of substitutes bearing other names and claiming to obtain the same results."

Several firms are now manufacturing arsphenamine and neo-arsphenamine under licenses from the treasury department. Every batch of their products is rigidly inspected and tested by the U. S. Public Health Service; and these products alone are used in the various hospitals and clinic of the service. "We do not consider that any other products have been shown to be sufficiently reliable," says Dr. Cumming. "But the value of arsphenamine is well established."

USE OF ARSENIC PREPARATIONS IN TREATMENT OF SYPHILIS

(Bureau of the Public Health Service, Washington)
Bureau Circular
Letter No. 219
Medical Officers, U. S. Public Health Service and others concerned:

Your attention is invited to the extensive exploitation through advertisements in professional journals and otherwise of various arsenic preparations which are not related to the arsphenamine group. The preparations referred to are sold with claims in regard to their value in the treatment of syphilis, which are unwarranted.

In the opinion of this office it is in the interest of all concerned that the subcutaneous, intramuscular or intravenous use of arsenic in the treatment of syphilis be confined to preparations of the arsphenamine group as these agents are of established value and are produced under the regulations of the Public Health Service. The following firms are now licensed for the manufacture of arsphenamine and neoarsphenamine:

Dermatological Research Laboratories,
1720 Lombard Street,
Philadelphia, Pa.
H. A. Metz Laboratories,
122 Hudson Street,
New York, N. Y.
Diarsenol Co., Inc.
Buffalo, N. Y.
Takamine Laboratories,
Clifton, N. J.

The Lowy Laboratory of Newark, N. J., has been granted a license to prepare a stable solution of arsphenamine.

It is not the desire of the Bureau to limit clinicians in the choice of agents of recognized worth but in the case of arsenic preparations, not members of the arsphenamine group, the available evidence indicates that their routine use is inadvisable in the treatment of syphilis. If it is desired to use any of these preparations in a purely experimental way, previous authority from the Bureau should be secured. Applications for this authority should be accompanied by a statement as to the composition of the drug including the structural formula and the reason for its use. All information available on the value of the preparation should be forwarded.

Receipt of this circular should be acknowledged and marked "V. D. Division."

H. S. CUMMING,
Surgeon General.

ISCHAEMIC MYOSITIS

Sir James Purves Stewart, in a clinical lecture on ischemic myositis, published in the British Medical, observes in relation to causation:

"A. In peace the commonest cause of ischemic

myositis is the too tight application of bandages or splints over a fractured forearm or elbow. This is the variety described in the text-books as von Volkmann's paralysis. Those parts of the forearm muscles which are most exposed to pressure (and it is almost exclusively the upper limb which is affected) develop ischemic myositis. Children or adolescents are the victims, partly, perhaps, because of the greater ease with which their arteries are compressed, but mainly, because an adult usually insists on the loosening of uncomfortably tight constriction.

"B. In war the commonest cause is obstruction of the main artery of the limb by ligation. Thus, I have seen cases following ligation of the subclavian, the axillary, and the brachial artery, on account of primary wounds or of their complications, whilst in the lower limb ligation of the femoral artery sometimes produces ischemic palsy.

"C. Least frequent of all are the cases due to spontaneous obstruction of the main artery, from embolism or from thrombosis."

NEWSPAPER ADVERTISING

Out of a total of 23,281 newspapers and magazines of all kinds published in this country (some of which do not carry advertising) 20,000 have given their pledge to the United States Public Health Service to discontinue the advertisements of quack doctors and nostrums dealing with venereal diseases, according to an announcement from the surgeon-general of the Public Health Service. The announcement continues:

"Most of the newspapers in the United States found it necessary to discontinue such advertising years ago because it discredited the paper as an advertising medium and without exception the papers that had adopted this policy stated it had been a means of increasing the market value of their space.

"Fortunately there are now only 140 advertising media in the United States publishing advertisements of the kind under the general ban. The boards of health in the states in which these are published have been appealed to to assist the government by taking over this activity."

WAR DEPARTMENT SELLS REMAINING SURPLUS OF HOSPITAL BANDAGES AND ABSORBENT COTTON

The war department authorizes publication of the following from the office of the director of sales:

The surplus property branch, office of the quartermaster general of the army has sold to Thomson & Kelly Co., of Boston, the remaining surplus of bandages and absorbent cotton, purchased for the use of the army during the war. The sale netted the government more than \$1,000,000. The bandages alone represent a quantity sufficient to supply the hospitals and surgeons of the United States with all their

needs for at least eighteen months. The Boston firm was the highest of a number of bidders for these items. Included in the sale were a million dozen roller and between two and two and one-half million compressed bandages, and approximately 2,250,000 1-ounce packages of absorbent cotton.

NEWS ITEM FROM THE NATIONAL RESEARCH COUNCIL

(From the Office of the Permanent Secretary, 1701 Massachusetts Avenue, Washington, D. C.)

A site for the new building in Washington which is to serve as a home for the National Academy of Sciences and the National Research Council has recently been obtained. It comprises the entire block bounded by B and C streets and Twenty-first and Twenty-second streets, northwest, and faces the Lincoln Memorial in Potomac Park. The Academy and Council have been enabled to secure this admirable site, costing about \$200,000 through the generosity of the following friends and supporters: Thomas D. Jones, Harold F. McCormick, Julius Rosenwald, and Charles H. Swift, Chicago; Charles F. Brush, George W. Crile, John L. Severance, and Ambrose Swasey, Cleveland; Edward Dean Adams, Mrs. E. H. Harri-man, and the Commonwealth Fund, New York City; George Eastman and Adolph Lomb, Rochester; E. A. Deeds and Charles F. Kettering, Dayton; Henry Ford, Detroit; Arthur H. Fleming, Pasadena; A. W. Mellon, Pittsburgh; Pierre S. DuPont, Wilmington; Raphael Pumpelly, Newport; Mr. and Mrs. H. E. Huntington, Los Angeles; Corning Glass Works, Corning, New York. Funds for the erection of the building have been provided by the Carnegie Corporation of New York.

IOWA UNIVERSITY NEWS

Dr. Don M. Griswold

Dr. A. H. Gunderson who graduated in 1917 and served a year as clinical assistant in the department of internal medicine at the University Hospital called on his former associates while on his way to Everett, Washington, where he will locate in private practice.

President Walter A. Jessup in a recent speech at the Iowa City Commercial Club announced that during the past year the University Hospital had cared for more than 8,000 bed patients. The average stay in the hospital of these cases was twelve days. That the University Hospital should care for this number of cases will be somewhat of a surprise to many.

To locate a medical school and teaching hospital in a small city usually invites the criticism that adequate clinical material for teaching purposes is not at hand.

These figures announced by the president should set at rest any such ill founded feeling toward the medical school of this state.

These 8,000 cases represent disease conditions found in every county of the State of Iowa and a variety of maladies that would be difficult to find in any institution other than one drawing from all parts of the state.

Dr. Lawson G. Lowry of the State Psychopathic Hospital recently attended the meeting of psychiatrists in Boston. On this trip Dr. Lowry also visited the Psychopathic Hospital at Danvers, Boston and New York to investigate the most recent procedure in the organization of psychopathic work.

Dr. Don M. Griswold, state epidemiologist, was called to Dubuque to investigate a threatened diphtheria epidemic.

Dubuque being a river town and railroad center makes it especially susceptible to epidemics that may be raging in any section of the United States.

Measures were outlined for the local authorities which, when vigorously carried out will prevent any great number of cases.

Dr. Griswold strongly recommended to the mayor and city council that they include a department of health in the local city government which should be adequately financed and put in the hands of adequately trained, full time, well paid, experienced, public health men. This is one of the cheapest means of insurance against any city receiving a bad name for harboring contagious diseases.

Manufacturers do not look with favor upon locating an industry in a city where production is interrupted by outbreaks of small-pox, diphtheria or other contagious diseases.

The department of student health has completed its first full examination of all students who have entered the university. This examination is not permitted to degenerate into a mere form but is carried out on the basis of the work done by the life extension institute in attempting to find the point most easily accessible to disease and advise remedial treatment as necessary.

When these figures have been properly compiled and studied it will be an excellent index of the health of the youth of Iowa.

Dr. Bundy Allen of the department of radiology announces that he has just received fifty milligrams of radium to add to his already large supply. These new pieces of radium are mounted in needles which can be inserted into growths of various kinds to supply the radium treatment in that way.

Professor H. E. Kirby of the college of education and Dr. Don M. Griswold of the college of medicine represented the university on the program of the Jackson County Teachers Institute held at Maquoketa, October 23 and 24.

The increasing amount of attention given hygiene and public health projects at these meetings of school

teachers is evidence of increased interest in the subject and the awakening of the idea of the community's responsibility for health.

The addresses were on the subject of "Health and How to Keep it" and "How to Introduce Health Teaching in the School Curriculum." Diseases and the treatment of diseases was not mentioned as it is felt that if health habits and health practices are introduced into the schools, that education will be contributing greatly toward the prevention of communicable diseases.

Dr. Mary V. Buell, associate professor of home economics has been detailed as chemist and dietician of the Chemical Research Laboratory of the University Hospital.

A small ward has been set aside at the University Hospital for the care and treatment of diabetes.

Several new and elaborate pieces of apparatus for the study of metabolism have been installed and extensive research is now under way.

The general line of treatment carried out on this particular group of cases is the usual one of individually prescribed diets under careful chemical control. Starvation treatment is not looked upon with favor.

Of the eighty-eight cases which have been handled in this ward there have been but two deaths.

Dr. R. B. Gibson of the Chemical Research Laboratory is in charge of this ward and results will be published from time to time.

VENEREAL DISEASE LABORATORY

Report for the Month of September, 1920

Lieut.-Col. W. S. Conkling, M.C.

Wassermann Tests—Positive, 266; negative, 853; doubtful, 102; reserved, 0; rejected, 68; anticomplementary, 12; total, 1,301.

Gonorrhea—Positive, 65; negative, 34; reserved, 26; rejected, 2; total, 127; grand total, 1,428.

Doctors from sixty-seven counties availed themselves of the venereal disease laboratories during the month of September.

Venereal cases reported during the month of October—Gonorrhea, 364; syphilis, 119; chancroid, 16.

A NEW TREATMENT OF GONORRHEA IN WOMEN

Dr. M. O. Nyberg of Wichita, Kansas, realizing the value of the vacuum suction apparatus applied elsewhere, has devised an instrument to utilize this system in cleansing the female genital tract. The treatment is employed as follows:

1. An instrument twelve inches long, simulating in all respects an irrigating curette with the exception that the distal end is shaped very much like the ordinary vacuum cleaner, is attached to any suction

apparatus. Running water and a Chapman tube may be used, but it is better still to use one of the newer electrical combination suction and insufflation machines combined with anesthesia apparatus.

2. The external genitals are cleansed by irrigation and suction; all parts should be clean shaven.

3. Should the infection extend to the vagina a fenestrated bivalve vaginal speculum is used and the vaginal vault irrigated with hot 1 per cent lysol solution followed by the use of the suction apparatus. The process is repeated until the mucous membrane is clean and comparatively dry. If desirable the mucous membrane may be dried by blasts of air, then antiseptic powder is applied. This method has been used several months with good results.

SALVARSAN BY RECTUM

Administration of salvarsan by rectum in the form of enteroclysis. Preliminary report by Wm. M. Wright, M.D., Philadelphia, General Hospital. The patient was without food for eighteen hours before administering the drug and for as many after the dose. Practically no reactions noted. Recommended especially where the intravenous method is difficult or impossible. Writer thinks that in this method, the solution is picked up by blood-vessels and lymphatics of rectum and sigmoid, and the greater proportion of the solution conveyed directly to the liver whence it is meted out.

A LETTER SENT TO THE DRUGGISTS OF IOWA

By direction of the Iowa State Board of Health, I am enclosing you five (5) copies of report blanks to be used by druggists in accordance with Section 19, Chapter 299, Acts of Thirty-eight General Assembly, a copy of which is enclosed.

The local health department, or city clerk, can supply you with these in the future, or same will be mailed direct to you from this department upon request.

Veneral diseases are among the greatest killing agencies, besides causing great suffering and disability among all classes. The deaths from syphilis alone in the United States last year were equal to the loss of Great Britain in any one year of the war. It is the opinion of the federal and state authorities that all venereal cases should be treated by competent physicians. Over 800 Iowa druggists have signed pledges not to treat venereal cases, nor to sell patent, or other medicines, for self-treatment, and for this they deserve commendation. If druggists sell specifics, patent medicines, etc., for the treatment of such diseases, the U. S. Public Health Service and the Iowa State Board of Health will insist upon them complying with the law.

Prescriptions from practicing physicians need not be reported as all doctors are required to report their cases.

Assuring you by earnest cooperation with the health authorities the druggists of Iowa can do much towards the control of these diseases, and in doing this you have the appreciation of the U. S. Public Health Service, and the Iowa State Board of Health.

CHARLES SUMNER CHASE

Dr. C. S. Chase, who retires from the headship of the Department of Materia and Pharmacology, began his connection with the University of Iowa in 1892, succeeding Dr. J. P. Farnsworth. Up to now these two men have been the only occupants of this chair since the establishment of the college of medicine in 1870.

Although Maine is Dr. Chase's native state, he has been many years in Iowa. He received the B.S. degree in engineering from Ames Agricultural College in 1874 and was a student in the department of medicine at the University in 1880-81, previous to his graduation from Rush Medical College in 1882. In 1895 the University of Iowa granted him an honorary degree of master of arts.—(Iowa Alumnus).

HONORS TO MEDICAL MEN

Cambridge University has conferred the honorary degree of doctor of laws on Dr. John Jacob Abel, professor of pharmacology at Johns Hopkins Medical School and Dr. Harvey Cushing, professor of surgery at Harvard Medical School.

Sir William Osler bequeathed his medical and scientific library to McGill University.

WORKMEN'S COMPENSATION

Forty-one states in the Union have workmen's compensation laws. The maximum period of time allowed for treatment in Iowa is thirty days; the range being from eight weeks in thirteen states including New York and Wisconsin, to unlimited time in eleven states, California, Connecticut, Ohio and West Virginia. The maximum amount of money for treatment ranges from \$200 to \$600 in eight states and is unlimited in ten states, including California, Connecticut, Indiana, Massachusetts, New York, Virginia and Wisconsin; in West Virginia it is \$600; in Iowa, \$100.

BELGIAN SOCIETY OF PSYCHIATRY

The Societe' de medecine mentale de Belgique held a jubilee congress in celebration of its fiftieth anniversary in Ghent, September 25-26. Dr. Ley, professor of psychiatry at the University of Brussels, is president of the congress and Dr. Howrey, Lierneux, Belgium, is secretary. Representative delegates from related societies of the United States was accorded a warm welcome.

DONATIONS FROM NORWAY TO VIENNA PHYSICIANS

Dr. R. Nadwig arrived recently in Vienna conveying six freight cars loaded with edibles of value estimated at 5,000,000 crowns for Vienna physicians and their families, donated by the physicians of Norway.

MEDICAL HISTORY OF TEXAS

The Texas State Medical Society has a committee on collection and preservation of records which has recommended to the House of Delegates that the data gathered be compiled for future publication. In response to this recommendation, the House of Delegates requested the board of trustees to set aside the sum of \$3,000 to be used in the compilation of data from which the history of medical affairs in Texas may be written.

The editor of the Iowa State Medical Journal has been engaged for many years in collecting data for a similar work in Iowa and has already published several installments in the Journal.

DEATHS FROM ACCIDENTS

Statistics recently published show that in the nineteen months during which the United States was in the war with Germany 50,150 American soldiers were killed in battle or died from wounds, while during the same period 126,654 were killed in the United States by accidents.

MEDICAL AND SURGICAL HISTORY OF THE WAR

It has been announced that the surgeon general of the United States Army has asked for a grant for the publication of the medical and surgical history of the war. A large part of the material for this history has been collected and its publication depends upon the action of congress. The first portion of an unofficial history of the Canadian Army Medical Corps was completed at the end of 1918, and it is expected that the German history, in nine volumes, will be ready this year. Considerable progress has been made already with the British official medical history of the war.—(Boston Medical and Surgical Journal.)

MEDICAL NEWS NOTES

Drs. G. H. Sumner of Des Moines, F. T. Launder of Garwin and Henry Albert of Iowa City, attended the annual meeting of the American Public Health Association in San Francisco, September 13 to 17. Dr. Albert presented a paper on "A New Classification of Diphtheria Bacilli Based on the Toluidin-Blue-Iodine Method of Staining."

Thirteen Iowa surgeons received fellowships in the American College of Surgeons at the eighth convocation of the college of Montreal, P. Q. The convocation ended a week of clinics in Montreal hospitals. These fellowships were awarded to Murdock Bannister of Ottumwa, Thomas A. Burke of Mason City, B. L. Eiker of Leon, Robert Evans of Fort Dodge, Joseph J. Flannery and Ralph H. Parker of Des Moines, D. E. Graham of Ottumwa, G. F. McCauliff of Webster City, T. U. McManus of Waterloo, B. E. Michel of Dubuque and J. B. Naftzger, Robert Rowse and P. E. Sawyer of Sioux City.

Dr. Herman S. Major, a member of the medical staff of the hospital for insane in Fulton, Mo., has resigned to become assistant superintendent of the Iowa insane hospital at Independence. Dr. Major was a member of the medical staff of the army for a period during the war, being engaged in special work among insane soldiers. Dr. Major practiced at Hardin, Missouri, for eight years before going to Fulton.

Members of the Tri-State Medical Association started a movement at the annual convention at Waterloo to raise \$100,000 for the foundation fund. A committee of fifty of the leading physicians of Illinois, Wisconsin and Iowa is in charge of the campaign. Dr. Henry G. Langworthy, Dubuque, a trustee of the society, is general chairman of the foundation drive. The state chairmen are: Dr. Roland Hazen, Paris, Illinois; Dr. C. S. Krause, Cedar Rapids, and Dr. W. E. Fairfield, Greenbay, Wisconsin. The fund is to be used to assure post-graduate instruction and information, the presence of the leading American teachers of medicine and surgery at the annual society sessions, and through its meetings directly further medical education and preventative medicine in three states. The real aim of the fund, according to members of the committee, is better health for the public in the communities served. The Iowa members of the committee are: Dr. James H. Guthrie, Dubuque; Dr. Walter L. Bierring, Des Moines; Dr. Donald Macrae, Council Bluffs, Dr. J. F. Herrick, Ottumwa; Dr. David S. Fairchild, Sr., Clinton; Dr. Tom B. Throckmorton, Des Moines; Dr. Clarence A. McGuire, Dubuque; Dr. A. N. Warren, Sioux City; Dr. William L. Allen, Davenport; Dr. J. E. O'Keefe; Dr. Paul Gardner, New Hampton; Dr. C. F. Waher, Ft. Madison, and Dr. Peter A. Bondixen, Davenport.

Regular clinics from 1 until 2 o'clock daily, opened recently in the health center of the Organized Welfare Bureau, under the supervision of forty doctors who volunteered as members of the Woodbury County Medical Society. In order to reach all patients systematically, the schedule assigns surgery and pediatrics cases to Monday and Thursday afternoons; eye, ear, and nose, gynecology and obstetrics to Tuesday and Friday, venereal diseases to Wednes-

day and orthopedics to Saturday. A monthly schedule is agreed upon by the doctors and those in charge for the month of October are announced: Dr. W. T. Conley, surgery; Dr. Emma Ackerman, pediatrics; Dr. L. R. Tripp, eye, ears and throat; Dr. William E. Cody, gynecology; Dr. James F. Taylor, obstetrics; Dr. Carl E. Bosley, internal medicine; Dr. Victor Brown, venereal diseases and Dr. Harry Schott, orthopedics. Miss Annette Phelan, county health crusader, and Mrs. M. W. Ainsworth, school nurse, opened their work in the country schools this week, with physical examinations and lectures.

St. Lukes Hospital, Mason City, was dedicated with appropriate ceremony, October 10, 1920.

OFFICERS OF THE TRI-STATE MEDICAL ASSOCIATION

Honorary president of clinics—Dr. George W. Crile, Cleveland, Ohio; honorary president, Dr. James R. Guthrie, Dubuque, Iowa; president, Dr. George V. I. Brown, Milwaukee, Wisconsin; vice-president, Wisconsin, Dr. Joseph Evans, Madison; vice-president, Iowa, Dr. Walter L. Bierring, Des Moines; vice-president, Illinois, Dr. Edwin P. Sloan, Bloomington; managing director, Dr. William B. Peck, Freeport, Illinois; secretary-treasurer, Dr. Domer G. Smith, Freeport, Illinois; president-elect, Dr. John E. O'Keefe, Waterloo, Iowa.

Board of Directors—Dr. John Van Reed Lyman, Eau Claire, Wisconsin; Dr. William Cunningham, Platteville, Wisconsin; Dr. Arthur G. Sullivan, Madison, Wisconsin; Dr. Donald Macrae, Jr., Council Bluffs, Iowa; Dr. John F. Herrick, Ottumwa, Iowa; Dr. Henry G. Langworthy, Dubuque, Iowa; Dr. Edward Fiegenbaum, Edwardsville, Illinois; Dr. Clifford U. Collins, Peoria, Illinois; Dr. James McDonald, Aurora, Illinois.

Program Committee—Dr. Horace M. Brown, Milwaukee, Wisconsin; Dr. Don Deal, Springfield, Illinois; Dr. Tom B. Throckmorton, Des Moines, Iowa.

MEDICAL SOCIETY OF THE MISSOURI VALLEY

The thirty-third annual session was held in the ball room, Hotel Fontenelle, Omaha, Monday and Tuesday, September 6 and 7, under the presidency of Dr. Charles Ryan of Des Moines.

The society was called to order by Dr. John P. Lord, chairman of the committee of arrangements.

The president's address was made a special order for the evening session.

The papers for the morning session of the first day: Dr. Frank B. Young, Gering, Nebraska; Dr. S. Grover Burnett, Kansas City; Dr. John W. Neartin, Des Moines; Dr. Tom B. Throckmorton, Des Moines; Dr. T. G. Orr, Kansas City; Dr. John W. Shuman, Sioux City; Dr. Oscar M. Gilbert, Boulder, Colorado.

The annual dinner was held in the ball room of the Fontenelle at 7:30 p. m., presided over by Dr. Charles Ryan, who delivered the presidential address. The guest of the evening was Dr. Karl A. Meyer of Cook County Hospital, Chicago, who presented a paper entitled, Ulcer Cure, Following Gastric and Duodenal Perforation.

Second day, morning session: Dr. Howard D. Gray, Des Moines; Dr. P. Q. Leonard, St. Joseph; Dr. Arthur D. Dunn, Omaha; Dr. W. E. Walcott, Omaha. Afternoon session: Papers by Dr. Newell Jones, Omaha; Louis E. Moon, John E. Summers, Omaha, and Dr. Thomas Byrnes, Atlantic, Iowa.

Election of officers: President, Dr. W. O. Bridges, Omaha; first vice-president, Dr. E. J. Watson, Diagonal, Iowa; second vice-president, Dr. Austin McMichael, Rock Pont, Missouri; treasurer, Dr. O. C. Gebhart, St. Joseph, Missouri; secretary, Dr. Charles Wood Fassett, Kansas City, Missouri.

Kansas City was selected as the place of meeting, September, 1921.

SOCIETY PROCEEDINGS

Boone County Medical Society

The September meeting of the Boone County Medical Society was entertained by Dr. Kate Harpel at the park.

The members of the Boone County Medical Society were the guests Tuesday evening, October 12 of Dr. J. O. Ganoe of Ogden for the regular monthly meeting of the society. Dr. Turner of Des Moines was the guest of the evening.

Cass County Medical Society

The Cass County Medical Society held a special meeting and banquet at Griswold, Wednesday evening, October 20. The doctors to the number of seventeen together with their wives and lady friends gathered in the parlors of the Union church, where a splendid dinner was served by the ladies of the church.

Following the dinner there was a short program of talks. Dr. W. F. Graham of Atlantic presided. Dr. Myers of Elliott responded to the toast, The Medical Profession of Montgomery County. Mrs. Hully, wife of Dr. H. D. Hully of Griswold spoke to the toast, How Doctors' Wives Look Upon the Medical Profession. Are Ethics a Bar to the Profession, was responded to by Dr. Thomas Byrnes of Atlantic.

Following the dinner the women attended a political meeting at the opera house addressed by Congressman Green, while the physicians listened to several professional papers.

Dr. R. M. Cullison of Atlantic read a paper on Prostatectomy. Mistakes in the Practice of Obstetrics was the subject of a paper by Dr. H. L. Wyatt of Griswold. Dr. Thomas Byrnes of Atlantic read a paper on Acidosis.

Cedar County Medical Society

The Cedar County Medical Society held a meeting in Tipton, Tuesday, October 19. Dr. Erskins, x-ray specialist from Cedar Rapids, was present and read a paper before the society.

Cerro Gordo County Medical Society

The Cerro Gordo County Medical Society held a regular meeting in Mason City, August 31. There was an attendance of twenty-three members. The paper of the evening was read by Dr. J. E. Marek.

Clinton County Medical Society

The Clinton County Medical Society met at the Hotel Lafayette, Thursday, October 28. After an elaborate dinner, the society listened to a lecture on Exophthalmic Goitre delivered by Professor C. P. Howard of Iowa State University.

Dr. Howard reviewed the history of the disease and the various theories of its pathology, presenting the objections to certain views held at various times and by different investigators and placing his stamp of approval on views which seemed to bear the test of physiological and pathological knowledge.

Dr. Howard considered the relation of exophthalmic goitre to the various organs and tissues of the body including the principles of medical and surgical treatment. The doctor has given the subject much study and thought and was prepared to present the subject from a physiologic and philosophic point of view. The lecture was listened to with deep attention and appreciation.

Hardin County Medical Society

The annual meeting of the Hardin County Medical Society was held in Eldora, Tuesday, Oct. 19, 1920.

Papers were presented by: Dr. S. L. Koch, instructor in surgery Northwestern University, Chicago, on Fractures and Up-to-Date Management. Dr. Joseph W. Rountree, Waterloo, Radium. Dr. Tom. Throckmorton, Des Moines, Insanity. Dr. Fred Moore, Des Moines, Malnutrition in School Children, Occurrence, Significance, Treatment.

Election of officers: President, O. H. Pagelsen, Iowa Falls; vice-president, W. H. Van Tiger, Eldora; treasurer, C. M. Wray, Iowa Falls; secretary, W. E. Marsh, Eldora.

Kossuth County Medical Society

An interesting meeting of the Kossuth County Medical Association was held at Whittemore Tuesday afternoon, September 7. Dr. Bowen of Ft. Dodge read a paper on Cardiac and Pyloric Spasm. The visiting doctors were entertained at a six o'clock dinner by Dr. and Mrs. McCreery at the Engler restaurant. Those in attendance were: Drs. Bowen of Ft. Dodge, Filmore of Corwith, Janse and Spooner of Lu Verne, Livingston and Boas of Livermore, Watson of Bode, Shipley of Ottosen, Baldwin

of Ruthven, Cretzmeyer of Emmetsburg, Woodbridge of Cylinder, Nash of Fenton, Maher of Bancroft, Peters and Clapsaddle of Burt, Cretzmeyer, Fellows, Hartman and Kenefick of Algona, and Ella Burke and Sybil Randall, nurses. Wives of the doctors who attended were Mesdames Baldwin, Boas, Watson and Livingston.

Pocahontas County Medical Society

The Pocahontas County Medical Society held its regular meeting at the court house in Pocahontas, Tuesday afternoon, October 5. Those present at the meeting were Drs. Smilie and Thompson of Gilmore City, Drs. Beam and Thompson of Rolfe, Dr. Everson of Plover and Dr. E. C. Kepler of Pocahontas. An interesting paper was read by Dr. Kepler. The next meeting will be held at Laurens, October 19.

Poweshiek County Medical Society

The Poweshiek County Medical Association held its annual meeting at Montezuma September 7. Dr. E. E. Harris of Grinnell and Dr. Crain of Deep River gave the program which was the discussion of High Blood Pressure. The next meeting to be held in Grinnell in December. Those who attended the meeting were: Drs. Chester, Crain and Busbee of Brooklyn, Drs. Bard, Williams and Ravitts of Montezuma and Drs. Lauder, Harris, Somers, Hopkins and Evans of Grinnell.

Ringgold County Medical Society

The Ringgold County Medical Society met December 1 in the parlors of the Odd Fellows building, Mount Ayr. On this occasion, the guests of the society furnished a very interesting and profitable scientific program:

Dr. B. L. Eiker, Leon, Tonsil Surgery; Dr. C. B. Luginbuhl, Des Moines, Splenic Anemia (Banti's disease); Dr. Enos Mitchell, Grand River, Treatment Acute Lung Trouble in Children.

Local Medical Society at Atlantic

A preliminary meeting of the physicians of Atlantic was held October 7 for the purpose of forming a city association, Dr. W. S. Greenleaf, temporary chairman and Dr. Thomas Byrnes, temporary secretary.

The Physicians and Surgeons Adjusting Association of Kansas City announces that in compliance with the request of physicians, they are now issuing an engraved membership certificate, suitable for framing, which entitles the members to all the benefits and privileges of the association, and is a protection against delinquents. This is furnished free of charge to all doctors sending in a list of accounts, which automatically entitles the doctor to membership in the association.

PERSONAL MENTION

Dr. A. B. Conaway of Marshalltown is spending the winter in Pasadena, California.

Dr. Armstrong of Preston has located in Miles, taking the place made vacant by Dr. McFaul, who has entered the national public health service.

Dr. G. W. Newsome has purchased the Alden Hospital at Indianola.

The sensational trial brought by Dr. Osborne and the Lutheran Hospital against Dr. Hobson of the Hampton Hospital for slander, terminated by a verdict in favor of Dr. Hobson.

Dr. J. F. Strain, who has practiced in Green Mountain twenty-two years, has retired from practice and will make his home in California.

Dr. E. W. Meis has returned from Boston and will resume his practice in the Francis building, Sioux City. He has been taking special work for the last six months in the Massachusetts Institute of Medicine.

Dr. Jeannette Franc Throckmorton of Iowa State Board of Health is giving a series of health lectures at the Natural Science Auditorium, Iowa City, which are open to all women. Dr. Throckmorton is also having conferences with any women of the university who wish it. Appointments are made through the office of the dean of women.

Dr. A. J. Jongewaard will sail November 18 from New York for Bombay, India, and will locate in the interior at Fialcot, where he will become a medical missionary under the auspices of the United Presbyterian board for the next seven years. Dr. Jongewaard will be accompanied by his wife, formerly Miss Florence Newlove and baby daughter, Jean. In India, Dr. Jongewaard, will join members of his family, two sisters, Dr. Wilhelminia and Miss Harriet, who is serving as a kindergarten teacher.

Dr. J. F. McKittrick, who has been in ill health for the past year, will accompany his family to Los Angeles, California, for a year's stay.

Dr. Julia Hill of Des Moines has been placed in charge of the laboratories of the Grinnell Clinic and also the laboratories at the Community Hospital. The Clinic has found it necessary to establish laboratories at their building on Fourth and Broad to supplement the work done at the Community Hospital. Dr. Hill and an assistant will be in charge of both laboratories. Dr. Hill has had much experience and will be a distinct addition to the efficient force of Grinnell's physicians.

Surgeon Wilbur S. Conkling of the state board of health, will attend the institute and all-America conference on social diseases to be held in Washington, D. C., November 22 to December 4 inclusive.

Dr. E. E. Hobby, for a number of years assistant in the surgical and anatomy department of the University, has resigned his position and will leave for an extended trip through various Eastern hospitals in a few days. Dr. Hobby expects to spend a month or more in the East and then go to San Francisco

where he has consented to take charge of one of the departments in a large San Francisco hospital. Dr. Hobby will be in San Francisco by January first.

Dr. E. D. McClean of Des Moines announces the change of his practice from orthopedic surgery to general and orthopedic surgery.

OBITUARY

Dr. T. C. Cole of Thurman, died at his home October 16, 1920 of pneumonia.

Dr. Cole was born in Indiana in 1853, moved to Thurman in 1860, graduated from the Medical Department Iowa State University (Keokuk) in 1878 and practiced in Thurman forty-two years. His son, Dr. Harold P. Cole will continue his work.

Dr. G. G. Herm of Lake Mills died at his home October 20th of Brights disease, aged fifty years, a graduate Hahneman Medical College, Chicago, 1904.

Dr. Frank Thompson of Cambridge died at his home October 20. Dr. Thompson was born at Iowa Center, July 14, 1858, was educated at Central University, Pella. Graduated in medicine from Iowa University Medical School, 1882, and practiced at Iowa Center and Cambridge. Dr. Thompson was active in local affairs and was a leading citizen.

Dr. Milo Avery died September 19, 1920, graduated at Rush Medical at Chicago, Illinois, in 1884; was surgeon for Illinois Central railroad for about fifteen years; coroner of O'Brien county eight years; was a member of the O'Brien county medical and ex-president; member of the Iowa State, Sioux Valley and Northwestern Medical Societies.

Milo Avery was born October 27, 1853, at Corinth, Vermont. At the age of twelve years he moved with his parents to Montour, Iowa, where he grew to manhood. He began teaching school at the age of twenty and taught for several years. Attended college at Wilton, Iowa. Later he took a course in medicine at Rush Medical College, graduating from that institution in the year 1883. He was married to Jennie Dudley in the year 1876 at Wilton. To this union were born two sons, Harold LeRoy and George, both of whom survive their father.

Dr. Avery practiced medicine a few years in the eastern part of this state and then moved to Aurelia in the year 1887, where he practiced for twenty years. He moved with his family to Primghar in the year 1907, where together with his son, Dr. Roy Avery, he practiced until within a few months of his death.

MARRIAGES

Dr. Donald Ion Stanton and Miss Grace Isabelle Harriatt of Guthrie Center. Dr. Stanton served in the medical corps in France and has recently re-

ceived the commission of captain in the regular service.

Dr. Leslie K. Fenlon of Clinton and Miss Lois Della Wicham of Garner. Doctor and Mrs. Fenlon are graduates of the Iowa State University department of Liberal Arts.

Dr. Walter E. Baker of Des Moines and Louise M. Sessenger, also of Des Moines, October 20, 1920.

Dr. James Risley Reuling of Davenport and Miss Dorothy Elmendorf Tul of New York City. The wedding occurred in New York City October 5.

EQUISETENE

The credit for the discovery of the meritorious suture material—equisetene—now coming into such rapidly increasing favor, is due to Prof. L. Kahlenberg of the department of chemistry of the University of Wisconsin. Prof. Kahlenberg spent many months of experimentation before the desired result was obtained.

A leading surgeon of Chicago states that he has used this suture material in hundreds of cases, each having one or more incisions, and the result that it has as a horse hair substitute for the coaptation suture comes about as near being ideal for these purposes any suture possibly can. It can also be used as a substitute for silk worm gut for the deep tension sutures, being much stronger than horse hair, a uniform strength and smoothness, causing no scar or danger of infection. This product is handled by the Huston Bros. Company of Chicago.

BOOK REVIEWS

ADVANCED LESSONS IN PRACTICAL PHYSIOLOGY FOR STUDENTS OF MEDICINE

By Russell Burton-Opitz, S.M., M.D., Ph.D., Associate Professor of Physiology, Columbia University; Professorial Lecturer in Physiology in Teachers College and the Extension Department of Columbia University. W. B. Saunders Company, Philadelphia and London, 1920. Cloth \$4.00.

From experience it has been found that the subject of physiology can best be presented to medical students in a combination of conference and didactic work with practical laboratory work to be performed by the student and this text of practical physiology by Dr. Burton-Opitz is the laboratory companion to his text-book in the same subject. As the time allowed the subject of physiology in a medical curriculum is relatively short it is impossible to teach the subject from purely experimental standpoint, even were that desirable. It is necessary, therefore, to select those experiments which not only bring out definite facts but from which the fundamental principles of the subject can be drawn. To avoid unnecessary waste of time in learning the more difficult technique and yet to give the student an opportunity

to see for himself important phenomena upon which to build his physiological knowledge has been the determining factor in Dr. Burton-Opitz' selection of experiments. The experiments are well chosen from the field of systemic and special physiology. He has not entirely avoided the danger of giving the student too much information as to what results should be expected from the experiment and some of the benefit of his, the student's, original observation is thus lost.

The book is well illustrated and the directions for performing the experiments well stated and sufficiently extensive to permit the student to work independently, with the exception of the mammalian ones. In the opinion of the reviewer Dr. Burton-Opitz has on the whole presented in his work a more satisfactory course in practical physiology than any previously published. McClintock.

A TEXT-BOOK OF PHYSIOLOGY FOR STUDENTS AND PRACTITIONERS OF MEDICINE

By Russell Burton-Opitz, S.M., M.D., Ph.D., Associate Professor of Physiology, Columbia University; Professorial Lecturer in Physiology in Teachers College and the Extension Department of Columbia University. W. B. Saunders Company, Philadelphia and London, 1920. Pp. 1185, figs. 538. Cloth \$7.50.

This book as stated in the author's preface covers in large part the subject matter of a series of lectures to the students of the College of Physicians and Surgeons of Columbia University. It represents an illuminating introduction to the field of practical physiology in general. The author has attacked the subject frankly as a physiologist, by the method of quantitative experimental analysis that in recent years has been revealing a more and more intimate kinship between biology and the maturer sciences of physics and chemistry. The bibliographical page references contribute materially to the value, satisfaction and comfort of the user who may wish to extend further his knowledge in certain phases of the subject. Dr. Burton-Opitz has been exceptionally careful in giving due credit to the work of other investigators in summarizing the physiologic literature. Yet, owing to the comprehensiveness of his own researches, he has been able in the development of his chapters to review briefly much of his own individual work. The numerous illustrations, some of which it is to be regretted show a certain degree of crudeness, carry as a rule, the desired explanation and are fairly correct with a few exceptions.

As in most text-books of this type the author opens with an introductory discussion of living substance and the general phenomena of life, followed by a clear and reasonably complete consideration of the various divisions of physiology. The chapters on

(Continued on Adv. Page xviii)

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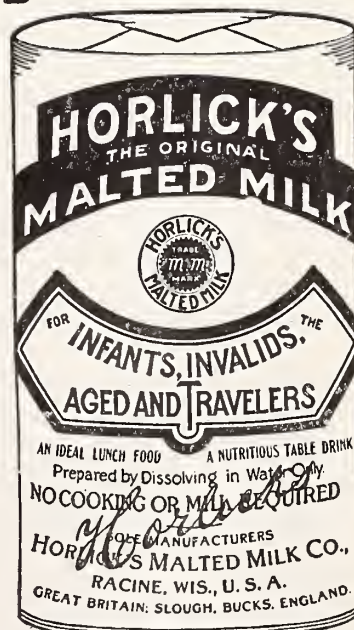
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BOOK REVIEWS

(Continued from Page 430)

blood, lymph, and the blood and lymph as protective mechanisms of the body although brief and greatly condensed contain many important physiological facts of comparatively recent years. From the educational standpoint it would appear from the arrangement of these chapters near the front of the book and directly following the introduction and the chapters on muscle and nerve, that the author fully realized the great importance of the nutritive tissue of the body from the functional side as laying the foundation for the study of all subsequent systems, since a complete consideration of the physiological relations of blood involves substantially a treatment of the entire subject of physiology.

The remaining divisions, circulation of the blood; respiration, voice and speech; central nervous system; organs of special sense; secretion; metabolism and reproduction are treated in a logical and convincing manner, and while the subject matter discussed is similar to that found in many other leading text-books of physiology, there is a new presentation of the facts by the author intermingled with more elaborate descriptions and use of such apparatus as the electrocardiograph, than is usually found in most text-books. The keynote of the whole book is brevity and simplicity. In many places there are brief clinical references tending not only to arouse interest, but to impart to the study a truly practical value.

Dr. Burton-Opitz is to be congratulated on the publication of this book which adds another to the growing list by American authors that is making accessible to physicians and students in attractive form the subject matter of physiology which is becoming the basis of modern medicine. McClintock.

THE FUNDAMENTALS OF HUMAN ANATOMY

Including its Borderland Districts. From the Viewpoint of a Practitioner. By Marsh Pitzman, A.B., M.D. Professor of Anatomy in the Dental Department of Washington

University, St. Louis. With 101 Illustrations. C. V. Mosby Company, St. Louis, 1920. Price \$4.00.

The reason for the appearance of this work on anatomy is best explained by the author in the preface. "This book will be written on a progressive system; that is, the essential facts will first be emphasized and then later on details and sidelights will be gradually added. Every term will be explained at its first appearance so that any student without previous special education should be able to follow the text, always provided the preceding parts have been understood and retained."

This book is not apparently intended for the use of students registered in a medical school but rather for the general student who seeks an elementary knowledge of human anatomy and for the use in training schools for nurses. The general facts of human anatomy are set forth in a clear and concise manner and will serve an excellent purpose in furnishing an introduction to a more advanced course.

AN EPITOME OF HYDROTHERAPY FOR PHYSICIAN ARCHITECTS AND NURSES

By Simon Baruch, M.D., L.L.D., Consulting Physician to Knickerbocker and Montefiori Hospitals; Consulting Hydrotherapeutist to Bellevue Hospital, New York City. Formerly Professor of Hydrotherapy, College of Physicians and Surgeons, Columbia University. 12 mo. of 205 Pages. Illustrated. W. B. Saunders Company, 1920. Price \$2.00 Net.

The purpose of this book is to present the value of water as a therapeutic agent in the treatment of disease. The first portion of the book is devoted to the technic of hydrotherapy. After describing the methods of application of water in different conditions where hydrotherapy is indicated, a section is devoted to hydriatic installment. A third section is devoted to the procedures adapted to various diseases.

The application of hydrotherapeutic measures can only be carried out properly in a hospital or sanitarium. We have found it almost impossible to secure cooperation on the part of nurses and hospital authorities in carrying out any efficient method of treatment. The value of hydrotherapeutic treatment is well known, but the difficulty is in securing operators. Provisions could easily be made in hospitals if the spirit of enterprise could be established. Even the application of hot compresses in local infections is difficult to obtain. It is sincerely to be hoped that books of this kind will excite an interest in the subject and bring about an effort to equip our hospitals with suitable means for the treatment. The cooperation of the medical profession is essential and an examination of this book will be helpful in calling the attention of doctors to a valuable auxiliary in the treatment of disease.

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